



Metal Gear Solid
Genetic bondage

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DISCLAIMER/SPOILER WARNING: You may choose not to read this if you have yet to finish the game and you don't want its contents spoiled to you.

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1 Introduction

“I have a difficult time grasping what we have come to – modifying a person’s essential genetic structure for the sake of creating a better soldier.” – **Nastasha Romanenko, In the Darkness of Shadow Moses : The Unofficial Truth, Metal Gear Solid 2: Sons Of Liberty**

Several other insightful essays¹ have been written about Metal Gear Solid – the third Metal Gear game and considered by many to be a ‘reboot’ of the series after its 16bit dormancy.

In this article, I will be retreading some trodden ground (particularly the Richard Dawkins/Neo-Darwinist leanings), but rest assured there is still a lot contained in this article that hasn’t been covered in-depth before.

It also happens that this article is somewhat timely given that Metal Gear Solid was recently re-released on PSN (PlayStation Network) and thus can now be played on both PlayStation3 and PSP. Luckily, the game has aged like fine wine – if you are willing to overlook the obvious downgrade in graphics and controls.

2 Chronological timeline

Chronologically speaking, the events of Metal Gear Solid take place (in preceding order) after Metal Gear Solid 3: Snake Eater, Metal Gear Solid: Portable Ops, Metal Gear and Metal Gear 2: Solid Snake. Therefore, some exposition is needed before the player can properly understand the following section. Provided for your convenience here is a condensed timeline; the games are listed in chronological order.

Game	Releasedate	Timeline	Event(s)
Metal Gear Solid 3: Snake Eater(PS2)	2004/2005	1964	Lead character: Naked Snake (later to be known as Big Boss) Plot premise: Big Boss works for the CIA (Central Intelligence Agency) and is redeployed somewhere in the Soviet jungle New characters: Eva, The Boss, Volgin and a young Ocelot.

¹ There are several essays[24, 2, 3] that all approach the series’ storyline from a somewhat different perspective, and they all make for highly interesting reading. None of them are specifically about ‘Metal Gear Solid 1’, though, which gave me an opportunity to add something to the equation here. I’ve included some of these essays in the Bibliography section.

Metal Gear Solid: Portable Ops(PSP)	2006/2007	1970	Lead character: Naked Snake(now awarded with the title 'Big Boss') Plot premise: Naked Snake needs to take out his former unit FOX in South America. New characters: A young Roy Campbell. Other recurring characters: A young Revolver Ocelot, and Eva.
Metal Gear Solid: Peace Walker(PSP)	TBA (2010)	1974	Lead character: Naked Snake (AKA Big Boss) Plot premise: An unknown militia invades the neutral country Costa Rica. Naked Snake (Big Boss) is brought in to fight them, but he later learns that the militia are funded clandestinely by the U.S. government. New characters: Paz Ortega Andrade, Huey, Coldman and Strangelove. Recurring characters:Master Miller.
Metal Gear(MSX/NES)	1987/1989	1995	Lead character: Solid Snake Plot premise: Snake is sent into South Africa to infiltrate and take out Outer Heaven, a militaristic rogue nation set up by Big Boss (his father). New characters: Gray Fox (Frank Jaeger). Other recurring characters: Roy Campbell.
Metal Gear 2: Solid Snake(MSX2)	1990	1999	Lead character: Solid Snake Plot premise: Snake is sent to some remote place called "Zanzibar Land" bordering the Czech Republic and the US; along the way meets (and takes out) Gray Fox and Big Boss. Other recurring characters: Master Miller, Roy Campbell.

Metal Gear Solid(PS1) / Metal Gear Solid: The Twin Snakes (NGC)	1998/1999 (PS1) 2004 (NGC)	2005	Lead character: Solid Snake Plot premise: Snake is brought out from early retirement to take out a terrorist group in control of a nuclear weapon. New characters: Meryl Silverburgh, Naomi Hunter, Hal Emmerich (Otacon) and Liquid Snake. Other recurring characters: Roy Campbell, Revolver Ocelot, Master Miller (impersonation), and Gray Fox (now a cyborg ninja).
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3 Recommended reading/viewing

“We used to think that our fate was in our stars. Now we know, in large part, that our fate is in our genes.” – **James D. Watson**

This essay on the 1997 movie *Gattaca*, “The New Eugenics in Cinema: Genetic Determinism and Gene Therapy in *GATTACA*”[4], should be read alongside the one you’re reading right now – as both articles cover similar ground.

The essay concludes that *Gattaca* was “virtually alone among recent popular-culture narratives in its rejection of the genetic-determinist ideology”, and geneticists could not help but to engage in a love/hate relationship with the film. On the one hand the movie vindicated their plight – pointing towards a future where illnesses and diseases can be prevented at birth, but at the same time the film takes a decidedly ‘pro-humanist’ stance that is opposed to all forms of scientific totalitarianism, including the ones that seem to be built on good intentions (on the surface). Its main criticism is that it puts far too much stock in genes, putting unrealistic expectations on genetically superior alpha citizens that they cannot hope to live up to while intentionally discriminating the have-nots who cannot afford such expensive gene therapy or have their children’s genetic features pre-natally determined.

3.1 Comparisons between *Gattaca* and *Metal Gear Solid*

I would argue that *Metal Gear Solid*, released a year later, is/was in many ways its videogame contemporary.

There are other narrative similarities between the two. Like the unprivileged “de-gene-erate” character in the film, Solid Snake outdoes his brother Liquid in nearly every battle, despite Liquid having inherited all of his fathers’ dominant genes. Similarly, it is strongly implied that Solid Snake eventually ‘outlasts’ Liquid Snake because of his sheer willpower to survive and his desire to protect Meryl and keep her out of harm’s way. The ending strongly hints at the game’s story being a *Gattaca*-like renunciation of the gene-deterministic perspective on life that geneticists like to espouse.



Fig. 1: After learning that Metal Gear REX was an offensive weapon instead of a theatre missile defense system, Hal Emmerich (Otacon) is overladen with guilt and tells the story of how his grandfather was involved in the Manhattan Project - and had to suffer with the subsequent guilt for the rest of his life. His father, meanwhile, was born on August 6, 1945 - the day the Hiroshima Bomb was dropped. Hal is determined not to step in his predecessors' shoes - and to prevent his own creation, Metal Gear REX, from unleashing destruction.

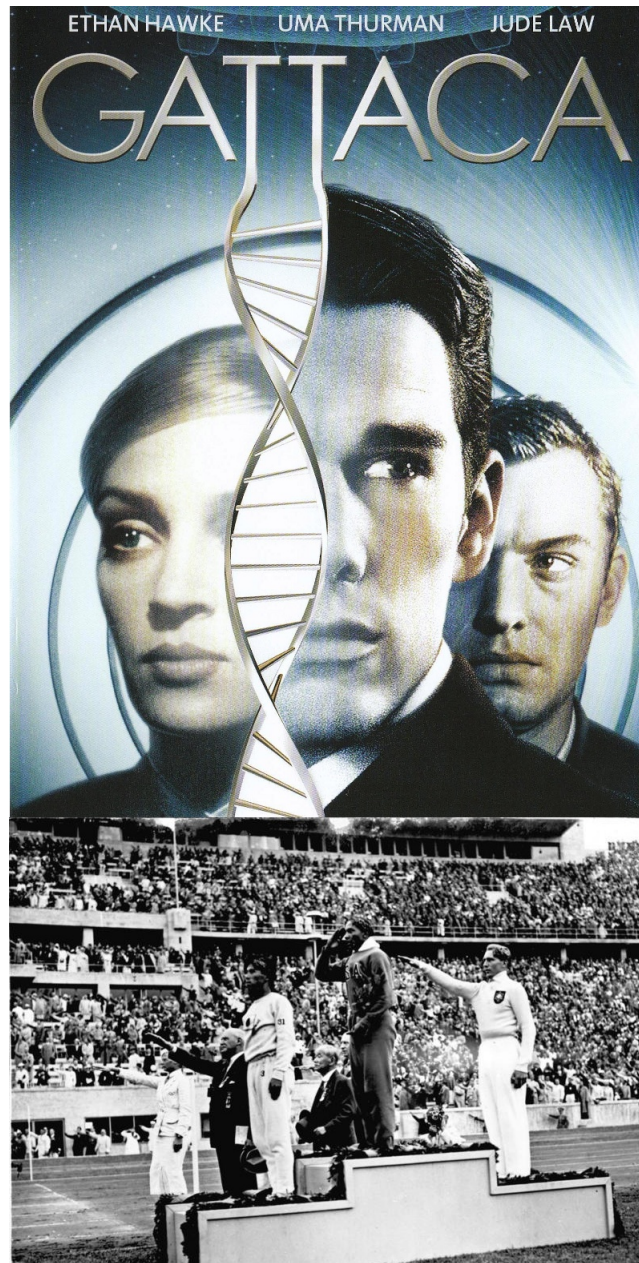


Fig. 2: (Top, Gattaca): From a gene-centrist perspective, Vincent, being a "borrowed ladder" (or "de-gene-erate" if you may), should, by the very nature of his genes, be unable to keep up with someone like Eugene Morrow in a swimming match. But not only can he keep up with his genetic superior, he actually outperforms him. This leads Eugene to doubt whether or not he is actually so inherently superior to common-bred people as he was led to believe. There is the parable of Adolf Hitler having his entire eugenic creed discredited right in front of everybody when his eugenically superior Aryan supermen lost to a black American athlete (below) in the 1936 Olympics.

4 Theme

The primary theme of Metal Gear Solid is genetics and a reinvigoration of eugenics due to the successful completion of the Human Genome Project. The game also takes a (somewhat) skeptical stance on Neo-Darwinian thinking as exemplified by Darwin, Spencer and Dawkins – perceiving the gene-centered view on evolution as a dead alley and a restraint on individual potential (see 7.3.2 on page 34).

The game can also be interpreted as an anti-nuclear screed (see 7.7.1 on page 50).

5 The Sons of Big Boss

“You two are an embarrassment from the 1970’s. Our country’s dirty little secret...” - **Secretary of Defense Jim Houseman to Solid Snake, Metal Gear Solid**^[Youtube]

Big Boss made his bones working as a CIA (Central Intelligence Agency) operative under the codename Naked Snake. His missions involved (among other things) infiltrating Soviet strongholds in the jungle. He goes on to be known as one of the greatest soldiers alive. But Big Boss eventually has a falling out with his former paymasters over a disagreement he has with the puppetmasters who were (unbeknownst to him up to this point) controlling and directing him all throughout his career.

This secret congregation of wealthy and powerful businessmen, called The Patriots, constituted a shadow government. Like any other oligarchy, they prefer secrecy and would rather some frontman take all the blame for decisions made on their behalf. After observing Big Boss’ rising stature as a soldier and military strategist, they immediately foresaw the benefits in having some powerful soldier like Big Boss be one of their frontmen – as a head of state as well as a soldier. But the problem was that such a person had to be controlled and ultimately not turn against the very system that had ‘created’ him so to speak. Given that (which was already a major complication – by the mid ’70s Big Boss was becoming more and more disillusioned with this shadowy cabal) and the inconvenient side-effect of Big Boss having been rendered sterile (this is explained in the ‘prequel’ games – Metal Gear Solid 3: Snake Eater and Metal Gear Solid: Portable Ops – this will be covered in an upcoming article), The Patriots decide to try their hand at a human breeding experiment.

5.1 Les Enfants Terribles

“You and I were originally octuplets. The other six of our brothers were sacrificed to make us. We were accomplices in murder before we were even born” – **Liquid Snake, Metal Gear Solid**^[Youtube]

This ’70s project (‘Les Enfants Terribles’) was developed with the specific intent to produce the ultimate supersoldier. It shares some similarities with the

positive eugenics experiments of Nazi-Germany (Lebensborn – also see Resident Evil 5 – Wesker’s Eugenic Endgame) – but obviously utilizing far more advanced technology given the wealth of knowledge they had acquired (about DNA and genes, for instance) by the ’70s. The desire to breed a specific subset of human supersoldiers dates back to Plato’s writings in Plato’s Republic. Eva (Big Boss’ lover in the prequel games) participated willingly in this project – they used Big Boss’ DNA to create a fertilized egg cell (zygote) that was then divided into eight separate egg cells.

Six of the eight fetuses inside Eva’s uterus were then intentionally aborted to encourage strong prenatal development in the two remaining ones. Solid Snake got all the recessive genes, while Liquid Snake received all the dominant ones.

5.1.1 Genetic Limits To Growth

There were some safeguards in place to prevent the clones from wreaking havoc in the unlikely event they went rogue. First of all, their reproductive abilities were permanently subdued by implanting them with a ‘terminator gene’ – similar in intent to Monsanto’s Genetic use restriction technology (GURT) used in its pharmacological crops.

The next inherent genetic safeguard was more of a byproduct stemming from the somatic cloning techniques employed to create Solid and Liquid – but The Patriots exacerbated this inherent flaw so as to turn it into a feature. Since cloned organisms often end up with significantly shorter telomeres due to the fact that the DNA has already been divided countless times, the subject will age far more rapidly as opposed to an organism conceived through natural means. In a timespan of just 10 years, Solid Snake would change in appearance from an adult looking to be in his late-’20s to an elderly man rapidly approaching his mid-70s.

5.1.2 Gulf War Brothers And Sisters

“Publicly, the President has been very vocal in his opposition to eugenics experiments.” – **Naomi Hunter, Metal Gear Solid**^[Youtube]

But according to Liquid, the eugenic experiments by the U.S. government did not just stop at ‘Les Enfants Terribles’.

Upon hearing from Liquid that the Gulf War soldiers were subjected to gene therapy experiments and injected with Big Boss’ soldier genes during the process, Solid Snake immediately balks at the very idea (the following dialogue excerpt is from the 2004 remake, Metal Gear Solid: The Twin Snakes):

Solid Snake: Ha! Everyone knows that the Gulf War Syndrome was caused by exposure to pesticides and radiation from depleted uranium rounds.

Liquid Snake: [chuckling] That was just the cover story issued by the Pentagon. First they tried to say it was post-traumatic stress

disorder, then chemical or biological weapons. The poison gas detection units and the anti-sarin injections, they were all just to cover up the secret genetic experiments. . .

Solid Snake: So then. . . the so-called Gulf War babies that have been reported by Gulf War veterans are. . .

Liquid Snake: Yes. They, too, are our brothers and sisters².

Out of these initial experiments arose the Next-Generation Special Forces and the Genome Soldiers – both containing much of the same soldier genes as Big Boss as a result of gene therapy.

5.1.3 Genetic diversity

“Have you ever heard of the Asymmetry Theory? Nature tends to favor asymmetry. Those species which have gone extinct all show signs of symmetry.” – **Liquid Snake to Solid Snake, Metal Gear Solid**
<http://spliced.com/F64m6nD14bw/7050/10205> [Youtube]

The basic problem permeating the Les Enfants Terribles project is the same one that has haunted Charles Darwin and evolutionary thinking in the past – yet conveniently it also served its purpose as an insurance policy on The Patriots’ behalf. The basic problem is that of genetic diversity – what Liquid Snake refers to as the ‘Asymmetry Theory’.

Genetic diversity is defined by this Wikipedia article as follows:

“Genetic diversity is a level of biodiversity that refers to the total number of genetic characteristics in the genetic makeup of a species”.^[Wikipedia]

Apparently, genetic diversity plays a big part in determining whether an organism can adapt to its environment and survive. If an organism is not genetically diverse, if the common ancestor that it derives from is on a genetic level too similar, then that species is in danger of dying off due to a certain disease it can not adapt to. Given that, healthy reproduction can become increasingly difficult if a sudden illness causes a swift decline in the overall fitness of a given blood-related species.

Inbreeding and human cloning both lead to a reduction in genetic diversity, and it’s for precisely these reasons that inbreeding and incest has been shunned throughout history without much thought being given as to why³.

² Since Metal Gear Solid’s release in 1998, Gulf War veterans have made some progress in their fight for recognition and treatment of various diseases incurred in the Gulf War. For starters, the misnomer ‘Gulf War Syndrome’ has been jettisoned by psychiatrists in favour of ‘Gulf War Illness’ – previously Gulf War veterans were being told it was ‘all in the head’ – now real substantial evidence has emerged that the exposure to sarin gas has had some detrimental health effects. The experimental Anthrax vaccinations using squalene as an additive were also found to be highly unsafe and unreliable – but they are not seen as the prime cause of the Gulf War Illness[5, 6, 7, 8].

³ Inbreeding has always been endemic in the upper classes – owing to the human-directed



Fig. 3: The game attributes the real cause of the Gulf War Syndrome (still termed Gulf War Syndrome in 1998, now Gulf War Illness) to secret gene therapy experiments whereby Gulf War soldiers were injected with the 'soldier genes' from Big Boss.

Because Solid Snake and Liquid Snake are essentially genetic copies of Big Boss, their immune system, too, is identical. What this means is that if a virus comes along that their particular immune system cannot adapt to, they are in danger of simply dying off.

This, to Liquid's mind, solidifies his notion that 'they' (meaning him and the other 'Sons of Big Boss') are on the verge of death at the genetic level.

5.2 Retroviruses and the Human Genome Project

"Science has always thrived on war." – **Hal Emmerich (Otacon), Metal Gear Solid**^[Youtube]

The development of RNA retroviruses is intrinsically tied to gene therapy and the Human Genome Project that much of the game's backstory hinges upon. In previous articles (see Resident Evil 5: Wesker's eugenic endgame, and The Impact Of Zombies On Society), we have already elaborated at length on the eugenics movement of the early 20th century and what came out of that.

Metal Gear Solid's story, taking place in the year 2005, however, has no such need for dwelling on the past, and instead covers eugenics in its current 21st century inception, starting with the Human Genome Project.

The Human Genome Project was initiated by James Watson who directed it from 1988 to 1992. The scope of the project was to map out the entire 'genomic' code of humanity. Basically, what this entails is that all of the hereditary information inside a human organism was to be laid bare so scientists could get a better understanding of how humans operate.

breeding experiments that had taught them the art of breeding in certain traits and characteristics into cattle. They figured the same could be applied to humans, and that if an elite family with 'superior' genes interbred with each other, the result would be even more prodigious offspring.

This turned out not to be the case, however, and the Darwin family is a prime example of this. Charles Darwin married his first cousin, Emma Wedgwood, and produced 10 children with her – all suffering from one particular health affliction or another. What worried Darwin most of all was that nearly all of his children had inherited his own health ailments. For instance, Charles Darwin had this propensity for stress-induced vomiting – which his daughter Henrietta inherited. At least two of his children died – one while still an infant (Charles the younger), the other dying at the age of 10 (Annie). Darwin suspected Major Leonard Darwin of being "rather slow and backward"; his second daughter, Elizabeth, "shivers & makes as many extraordinary grimaces as ever".

Several of his sons and daughters did manage to land their way into prestigious institutions where they carried the baton for 'eugenics' – Major Leonard Darwin in particular was made President of the International Congress On Eugenics (an incredible honor bestowed on Darwin's son given that Francis Galton was the preceding President and had been for all intents and purposes the grandfather of the entire movement)

This article from the University of Alberta, Canada suggests that the Darwin family, fearing that their inbred and dysgenic traits prevented them from having a normal lifestyle, applied their own insecurities and dysgenic nature to society at large – a genetic case of 'passing the buck' in the name of a feigned 'deep concern with the proliferation of sub-normal working class children in town' – all of which perhaps were of more healthy breeding stock than the Darwins intent on passing through all sorts of enforced eugenic laws[9, 10, 13].

Attempts at a better understanding of the inner workings of Man were tried before by the Eugenics Record Office (1910-1944) – information on specific human traits was compiled in a so-called Trait Book, which also tracked information on ‘pedigree’ (superior) families and their specific traits. Of course, by the time the Human Genome Project was initiated, the field of genetics and molecular biology had advanced to such a point that the ERO’s relative efforts were left in the dust – or at worst made a complete mockery out of it.

Now that the genomic code was entirely documented for the first time, scientists could gain a better understanding of the underlying causes of sickness, bacteria and viral strains in humans. With this increase in knowledge, however, came also the distinct possibility of an increase in biological warfare capabilities. For example, specific RNA (Ribonucleic acid) viruses could now be developed that could replicate itself inside a host cell of the target, produce its own DNA from the genomic code of the virus and then incorporate itself into the host’s DNA. Not only selective targeting of individuals was now a possibility, but also the targeting of specific genotypes (meaning people of a certain ethnic trait⁴).

This, and several other related advancements in viral research, led the Pentagon towards developing military-grade retroviruses for use as biological weapons. The FOXDIE virus would be such a weapon.

6 The mission

The whole truth behind the mission was never properly revealed to the player until the release of the second game, Metal Gear Solid 2: Sons of Liberty. In retrospect, it appears this so-called ‘terrorist hijacking’ of the base was a well-devised ruse by a man trying to exert himself as the leader of his own country by taking out the forces that were manipulating him behind the scenes.

6.1 Orchestration of the incident

As revealed in the previous chapter – there was a third ‘son’ of Big Boss that happened to be a near-exact replica – Solidus Snake. While Solid Snake would come to experience the same ‘accelerated aging’ phenomenon (most likely a form of Werner syndrome), Solidus Snake in particular was engineered specifically to age markedly faster. This was presumably because The Patriots wanted to groom him for his role as a Presidential Nominee, a figure head of the United States bowing to The Patriots’ every whim. In public life he adopted the alias ‘George Sears’ (most likely a reference to the Civil War General) and became the 43rd President Of The United States.

⁴ A document published by the Project For The New American Century (a neoconservative thinktank) in 2000, written exactly a year before 9/11, alluded to this and other potential avenues for American military dominance throughout the 21st century. The document was entitled “Rebuilding America’s Defenses” and can be read in full on their homepage[12].

It also insinuated that this ‘process of transformation’ (as in: the transformation from a more restrained military doctrine to a more active and ambitious one) would be slow, unless some precipitating event were to occur that would be on the scale of Pearl Harbor. Read into that what you will.

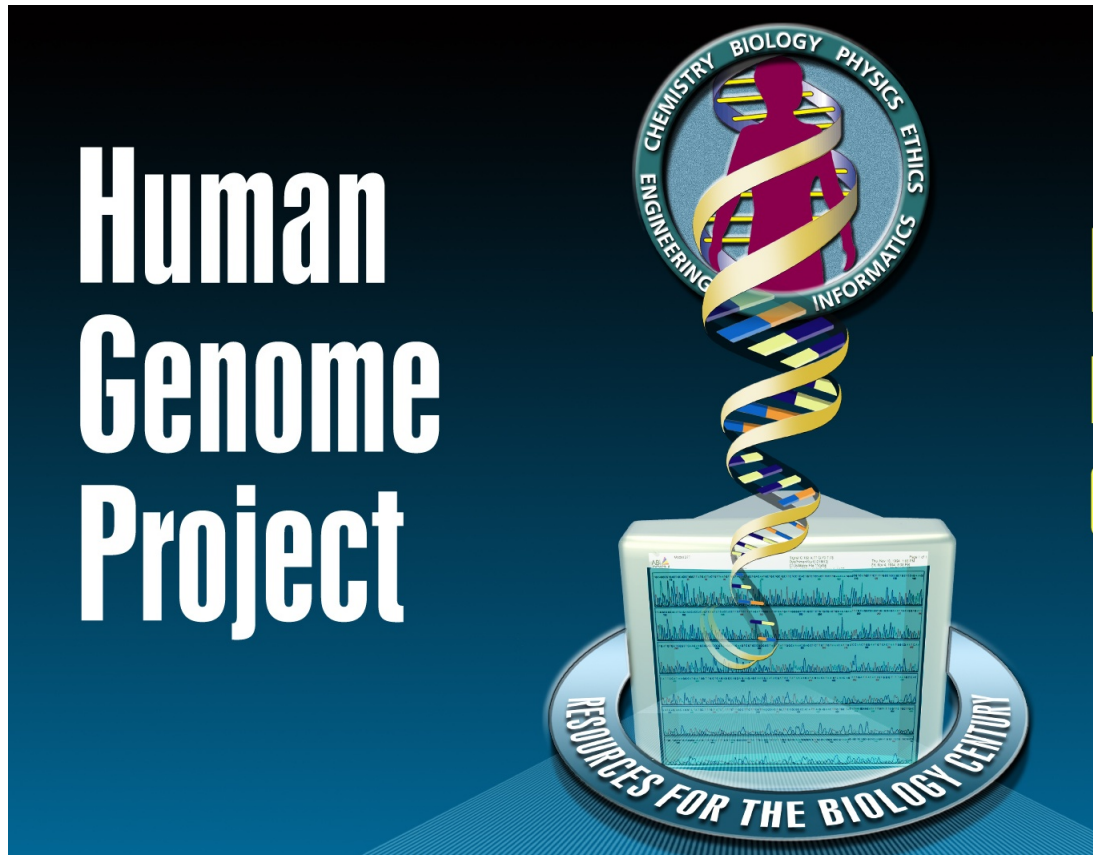


Fig. 4: As of 2007, the Human Genome Project is considered to be successfully 'completed'. With the mapping of the human genome came an increased understanding of RNA retroviruses and their effects on the human body. The development of race-specific bioweapons as a political tool is now a reality.

But Solidus Snake proved to be not quite the willing puppet The Patriots had in mind. While The Patriots did manage to pass through the Metal Gear REX project and the Genome Soldiers eugenics experiments on Solidus' watch, he figured he had one last ace in the hole that could turn the tide.

He bided his time until all the chess pieces were into place – Metal Gear REX being essentially completed and only needing the test data to prove its potential; a pre-arranged meeting between DARPA (Defense Advanced Research Projects Agency) chief Donald Anderson and Arms Tech CEO Kenneth Baker at the disposal facility. The aim was to conduct test experiments of Metal Gear REX's nuclear launch capabilities in a virtual environment and retrieve the test data. This was to be Solidus Snake's perfect moment of opportunity to stage a false-flag provocation that would put The Patriots off-guard.

6.1.1 Solidus' mole in FOXHOUND

Solidus Snake would need some mole as part of the staged insurrection to ensure the central players in the revolt would not derail Solidus' original plan for Metal Gear REX.

Revolver Ocelot would serve as George Sears/Solidus Snake's eyes and ears – a double agent pretending to work under Liquid. He was the one that persuaded Liquid Snake to mount his insurrection at the base using the Genome Army and Next-Generation Special Forces to grab hold of Metal Gear REX. Liquid would then issue his demands to the US Government:

- Hand over the remains of Big Boss
- [after learning Snake was brought in as the carrier of a virus vector] A vaccine for the FOXDIE virus – this was most likely not anticipated by Solidus beforehand, and a change of course on Liquid's part

If the demands were not met, Liquid would threaten to use Metal Gear REX as an ICBM launcher.

6.1.2 Liquid's divergence from the plan

“That Liquid Snake is a smart one. . . he knows the political climate. His actions were obviously very well calculated. . .” – **Nastasha Romanenko, Metal Gear Solid**

It's not known if Liquid was ever aware he, too, was being used as a pawn. Believing he had full control over the mission, he wanted instead to fulfill Big Boss' vision of a militaristic nation that was outside the sphere of influence of The Patriots.

Due to his geopolitical savvy, Liquid was in favour of playing superpowers against each other rather than taking them head on (such as: launching a nuke against the United States itself), which would most likely result in mutual assured destruction. This was the reason why he went against Ocelot's suggestion to set the target for the nuclear strike to be Chernobyl, Russia – preferring



Fig. 5: "I hear the terrorist are calling themselves: 'The Sons of Big Boss'". This obvious reference to the Sons of Liberty - the secret society that was formed by the Founding Fathers of the United States - implicates Solidus Snake in the Shadow Moses Incident proceedings. In the spirit of the American Revolutionary War, he is trying to ignite the fire of the revolutionary spirit by pulling off a false-flag operation that will force The Patriots to come out of the shadows. In particular, he wants to wrest control of The Patriots' new weapon, Metal Gear REX, away from them and use it as a battering ram against them so that he can put the country (and for that matter the world) back in the hands of parliamentary democratic control - or at least keep it outside The Patriots' control.

instead Lipnor, China – the location of a nuclear test site. Firing a nuke on civilian territory would spell the end for any possible future negotiations – but an attack on a nuclear test site could still be concealed from the public by the Chinese government. This way, he could pit the Chinese faction of The Patriots against the American faction – and the latter would be forced to confess to some of its state secrets. At that point he figured the other superpowers in the world would be interested in buying the system from them (Metal Gear REX and possibly improved Genome Soldiers) – at which point he would sell them to the highest bidder.

Liquid Snake believed in ‘directed guidance’ of conflict – in creating the preconditions of perpetual war between major geographical power blocs (not unlike Nineteen Eighty Four’s take on it) so soldiers such as him would never lose their place in the world. In a way, he’s applying the ‘Selfish Gene’ theory to socio-economical-political phenomena – ensuring he and his ilk would never have to switch careers. There’s a big question mark hanging over his motives – it’s doubtful whether he genuinely wanted to curb The Patriots’ stranglehold over the world to restore some mirage of a free and open society – or whether he was merely in it for the egotistical power trip.

6.2 The Patriots’ Contingency Plan

The incident (dubbed the FOXHOUND Rebellion) catches the Pentagon (and, by extension, The Patriots) off-guard: they did not want to let their joint research project Metal Gear REX go to waste, and more importantly, they needed its test data for BDA (bomb damage assessment) purposes. This was the reason why both the DARPA chief (himself an operative and founding member of The Patriots) and ArmsTech CEO Kenneth Baker were both present at the nuclear disposal facility housing Metal Gear – to observe the VR (Virtual reality) simulation and take the data back to the Pentagon on an optical storage medium.

As soon as the Pentagon learns of Liquid Snake’s demands – The Patriots get into play. Obviously they’re not going to give in to his demands, as the remains of Big Boss are the bedrock of all the eugenics experiments performed by the government. So, they develop a contingency plan instead: a lone agent infiltrates the base, takes out the terrorists, retrieves the test data, leaves Metal Gear REX unharmed and returns to base. To achieve full command and control (C2) over the mission, they placed several moles at highly strategic positions of mission command:

Person	Function
Jim Houseman	As the Secretary Of Defense, Jim Houseman is in charge of the entire Shadow Moses operation through AWACS (Airborne Warning and Control System). His aim is to retrieve Metal Gear REX and the nuclear test data unharmed. The only life he considers worth saving at the base is that of fellow Patriots stooge, Donald Anderson. The rest have been specifically targeted for elimination by coming into contact with the carrier of the FOXDIE virus (ie Solid Snake).
Richard Ames	Defense Intelligence Agency (DIA) chief, Patriots minion and the one who essentially forces his ex-spouse Nastasha Romanenko into providing mission support for Snake. During the job, she becomes privy to classified information that puts her life at risk.
Donald Anderson (AKA Sigint)	He is the DARPA (Defense Advanced Research Projects Agency) chief. He is a founding member of The Patriots and collaborated and oversaw many projects during his stint at the agency, including the ARPANET (predecessor of the Internet). It was an inconvenience and a loss for The Patriots that he was captured and killed at Ocelet's hand.

7 Characters

Nearly all of the characters have at least one character flaw. This could be some traumatic event in their past that shaped their character, or some particular doctrine/philosophical creed they adhere to that, in one way or another, leaves them vulnerable to attack.

7.1 Solid Snake

“Well, I don’t believe in coincidences. Something funny’s going on.”
 – **Solid Snake, Metal Gear Solid**

Solid Snake is the twin brother of Liquid Snake. He is the one handpicked by The Patriots to infiltrate the Alaskan nuclear disposal facility at Shadow Moses Island.

7.1.1 Coerced mission assignment

“I should have known you were behind this, Colonel.” – **Solid Snake, Metal Gear Solid**^[Youtube]

Committing patricide in the name of serving one’s country and restoring world peace was one step too far for Snake’s conscience; after the events of Zanzibarland (Metal Gear 2: Solid Snake), he went into early retirement and started a new life as a dog musher somewhere in Alaska. He wanted nothing to do again with his former profession.

When news broke of Liquid Snake’s ultimatum to the White House, The Patriots set their contingency plan into motion: Roy Campbell was brought out from early retirement to become Snake’s CO (Commanding Officer) once more, while Snake himself was forcibly kidnapped from his home in Alaska and dragged into a holding cell. There he was briefed on the situation by Roy Campbell – and forcibly injected by Naomi Hunter without even having decided to accept the mission yet.

Snake was to infiltrate Shadow Moses Island (a fictional archipelago situated in Alaska) under the auspices of a rescue and reconnaissance operation. Because of the extremely harsh climate, Snake would need some stimulants to keep him alive and alert. This is where Dr Naomi Hunter came in.

7.1.2 Pharmacological stimulants

“That was quite a cocktail.” – **Solid Snake, Metal Gear Solid**

Solid Snake has received a variety of psychotropic stimulants and chemical injections as part of his mission detail.

Benzedrine: Marketed by the pharmaceutical establishment under the name Amphetamine. Keeps Snake awake and responsive for 12 straight hours.

Antifreeze protein: What Naomi Hunter refers to as an ‘anti-freezing peptide’. Prevents Snake’s blood and other bodily fluids from freezing even at sub-arctic temperatures. Antifreezing proteins are increasingly being used in the real world for a wide variety of purposes – one example being Unilever incorporating it into some of their products, including popsicles and ice creams.

Antifreeze proteins (AFPs) are merely a class of amino acids that certain plants, fungi and bacteria produce to survive in sub-zero temperatures. From the Wikipedia article:

“Antifreeze proteins (AFPs) or ice structuring proteins (ISPs) refer to a class of polypeptides produced by certain vertebrates, plants, fungi and bacteria that permit their survival in subzero environments.”^[Wikipedia]

Nootropics: Also referred to as smart drugs, or memory enhancers. Amphetamine and Ritalin both fall under this category. There are inherent hazards associated with these ‘smart drugs’, however, such as serotonin syndrome or addiction to the drug.



Fig. 6: Back in the good old days of the '80s, Japanese game artists resorted to plagiarizing the likenesses of famous actors in Hollywood films whole-cloth with an audacious disregard for copyright infringement; (above-left) Solid Snake as shown on the Metal Gear (1987) MSX/NES boxart; (above right) Michael Biehn from The Terminator (1984); (bottom) Solid Snake in Metal Gear Solid 4: Guns Of The Patriots (2008).

7.1.3 Snake's Usefulness as A Viral Vector

In gene therapy, retroviruses are the leading weapon employed in the fight against diseases. Retroviruses are injected into the given subject to attack only the dividing cells.

To give but one specific example: to treat brain cancer, the subject is injected with a retrovirus containing a “suicide gene”. These retroviruses then produce factories in the body churning out massive quantities of their kind in order to then conspire against the dividing cells (cancer cells) and destroy them. The other cells remain unaltered by the virus due to the existence of something termed the “bystander effect”.

It stands within reason that if a virus vector can be used in such a way to alleviate diseases – it could also be used to attack specific DNA sequences for warfare purposes. This is what the Pentagon sought to engineer under its ambitious bioweapons program – of which Dr. Naomi Hunter later became a part of.

The Patriots, with the Secretary Of Defense acting as the official go-between guy, desired to retrieve Metal Gear REX unharmed and dispose of anybody who knew about the project or the shenanigans involving the nuclear disposal site. To do that, a novel approach in dealing with the problem was needed. FOXDIE would fit the bill for a number of reasons:

1. It could be sold to lower-ranking military brass as 'just a specific vaccine' the guinea pig had to be injected with that would cause no additional side effects - and they would think nothing more of it.
2. A lone wolf such as Snake could be sent in under the pretense of a 'rescue operation', encounter the 'targets' the FOXDIE virus would be specifically designed to target, and infect them in the process - causing immediate cardiac arrest in the target. In essence, they would use Solid Snake as a living, breathing retrovirus carrier - spreading the disease throughout the entire base and killing everyone in its path.
3. Specific high-profile members of The Patriots (such as Donald Anderson, and one would presume Revolver Ocelot) were left conveniently out of the crosshairs.

The Pentagon did not anticipate that the person responsible for much of the breakthrough research involving the FOXDIE virus would essentially yank in a last-minute feature of her own: next to the predefined targets the virus was supposed to eliminate, it would also target the host, Solid Snake, itself – but instead of causing instant death, it would remain dormant inside the body and be activated at some random date in time. The mere knowledge that he could die at any given minute was the added psychological torment Naomi wished to impose upon him for having killed her beloved brother – for the rest of his life, Snake would have to live with the specter of Death looming over his shoulder.

Thus, Solid Snake was unwittingly injected with the FOXDIE virus and remained none the wiser as to the mysterious deaths surrounding the (fake)

DARPA chief (in reality Decoy Octopus, one of the FOXHOUND terrorists) and Kenneth Baker until Naomi finally revealed to him the real reason behind the inoculations. By ensuring anyone inside the base who had firsthand information on Metal Gear REX would never leave the base alive, the Pentagon was in a position to contain the ‘leakage’ of their secret black-ops program. In this respect, it paid off – to a degree. What they didn’t anticipate in all likelihood was that the President would throw a wrench in their plans at the last minute. (a wave of conspicuous assassinations and forced resignations would then ensue – George Sears had to do a Nixon and go into hiding while the Secretary Of Defense was placed under arrest and committed ‘suicide’ a few months later)

7.1.4 Parallels between Escape From New York/LA and Metal Gear Solid

Numerous parallels exist between Snake’s mission briefing and the one Snake Plissken receives in Escape From New York (obviously, it has long since been established that Solid Snake/Big Boss are modelled after the Snake Plissken character – right down to Naked Snake/Snake Plissken’s eyepatch and voice actor David Hayter’s gruff imitation of Kurt Russell):

- Blackmail
- Injections/virus
- Radar
- Geopolitical summit/meeting within given deadline

7.1.4.1 Blackmail In Metal Gear Solid: Solid Snake is given various injections – ranging from an anti-freezing peptide to nootropics. What Snake isn’t told, however, is that as part of the injection he contracted an RNA retrovirus that has the ability to target specific gene sequences in specifically designated people and cause immediate cardiac arrests. Worse, Naomi later reveals to Snake that she included him as part of the ‘dead list’ – but set the incubation rate to a random number. Like the NEXUS-6 replicant Leon relays to Blade Runner Deckard: “Nothing is worse than having an itch you can never scratch.” When Snake shows reluctance at being inoculated by Naomi, she soothingly alleviates his fear by responding in a thick British accent: “What’s wrong? [giggle] You don’t like shots?”^[Youtube]

In Escape From New York: Snake Plissken is injected with microscopic explosives that will blow open his arteries in 24 hours. This is to dissuade Snake from abandoning the mission and trying to run off. He is promised that, in the likelihood he completes the mission successfully, they will defuse the explosives. Unlike Solid Snake, Snake Plissken is told this beforehand almost immediately after the inoculation. Snake Plissken comments at one point: “I don’t like needles”.



Fig. 7: (Top): Solid Snake in Metal Gear Solid being given an inoculation containing the virus; (bottom) Snake Plissken being injected with microscopic explosives that are set to be activated fifteen minutes before the deadline.

7.1.4.2 Radar In Metal Gear Solid: Snake is told that one of the hostages he needs to rescue, DARPA chief Donald Anderson, has been injected with a location device that gives off a signal. This can be picked up by his Soliton radar system.

In Escape From New York: The President wears a vital signs bracelet on his arm⁵ – Snake is given a radar device that can pick up the signal.

7.1.4.3 Geopolitical summit/meeting within given deadline In Metal Gear Solid: Snake is told that the President Of The United States and the President of the Russian Federation are scheduled within the given time limit (24 hours) to host a summit where the START III treaty will be signed⁶.

In Escape From New York: The leaders of the United States, China and the Soviet Union are set to host a meeting within the given time limit (24 hours) where an important issue will be discussed – nuclear fusion.

PS: Obviously, the Soviet Union was dissolved in 1990, and Escape From New York takes place in 1997; at the time of the film's release (1981), it seemed highly unlikely that the Soviet Union would be gone by 1997.

7.1.4.4 Escape From The Clones This article[13] by N'Gai Croal in Newsweek points to even more similarities between the 'Escape From' franchise and Metal Gear Solid. The cancelled screenplay for the 1995 prequel to Escape From New York, Escape From LA, features a villain that has succeeded in creating numerous clone copies of Snake Plissken. He intends to turn a sizeable profit by selling them to mercenaries and guerrilla fighters (and this is key: since this is the prequel to Escape From New York and Snake Plissken somehow succeeds in blowing himself up along with the entire factory plant containing the clones, this would entail that the Snake Plissken we get to see in Escape From New York is one of the few surviving clones – just like Solid Snake is a clone of Big Boss).

7.1.5 Nanomachines And The Biofeedback Loop

Naomi Hunter has also been made in charge of administering and monitoring Solid Snake's health through the various nanomachines she has injected him with.

⁵ Interestingly, in Metal Gear Solid 2: Sons of Liberty, the President of The United States has been implanted with nanomachines that give off his vital signs and overall physiology. These appear to form part of a sophisticated nuclear missile lock-out system - if the President's vital signs are shown to be irregular (ie. the President has been tortured, poisoned or killed) - Arsenal Gear's nuclear launch capability can't be activated.

⁶ In the original script for Metal Gear Solid 2: Sons of Liberty, STARTIII had yet to be signed at the time of the Big Shell Incident. In keeping with the whole 'save the President within the geopolitical meeting deadline', the President was to announce unilateral airstrikes on Iraq and Iran the following day. This entire plot element was (supposedly) erased from the final script because after the 9/11 airstrikes, the Second Gulf War was practically an event waiting to happen.

By having Naomi be available to you at all times by codec to provide you with constant updates on your physical health status, one could argue this constitutes a biofeedback loop of some sort. But unlike Psycho Mantis reading the contents of your memory card and telling you what you already know and have no immediate effect on (ie. Mantis tells you that you like Castlevania based on the fact that a save game is contained on your Memory Card) , in this instance the player is actively participating in breaking the fourth wall.

Let's have a look at the definition of biofeedback and then bring up the example of Snake smoking a cigarette:

“Biofeedback is a non-medical process that involves measuring a subject's specific and quantifiable bodily functions such as blood pressure, heart rate, skin temperature, sweat gland activity, and muscle tension, conveying the information to the patient in real-time. This raises the patient's awareness and therefore the possibility of conscious control of those functions.”^[Wikipedia]

If you call Campbell while you are smoking a cigarette, Naomi will confront you with your 'dirty deed' and get into a long-winded monologue explaining which exact gene is being triggered by smoking that will eventually result in the person contracting lung cancer. You can also see the health meter slowly deteriorating while ingesting nicotine. Thus, by observing a detrimental effect to Snake's health without no obvious benefit to be gleaned from him smoking a cigarette, you (the player) can perhaps be persuaded into adjusting Snake's behaviour pattern and ditching the cigarette entirely. On the other hand, when Snake needs to pass through a room laden with infrared sensors, he can use the cigarettes to his advantage as the smoke reveals the infrared beams. Alternatively, he could also opt for the thermal goggles – but this is a luxury that you will eventually acquire during the mission – while Snake's cigarettes are available to you right from the start.

A second example involves another nanomachine Naomi injected you with that protects you against phosphorus-based nerve gas for a short time duration. This is due to the nanomachine containing protopam chloride (PAM), a nerve gas neutralizing agent. A second meter will pop up if you're in a room with nerve gas seeping in. This meter indicates the amount of time you have left before the PAM supply inside the nanomachine runs out, after which you will have to reach for a Gas Mask or escape the room in some other way.

Another example involves the accuracy of Snake's hand-eye coordination. This is nearly outside the player's control – the PSG-1 sniper rifle he gets to equip is a bit on the wobbly side, and to beat Sniper Wolf the player will have to find some way to get Snake to steady his aim so your crosshair in first-person mode won't float all over the place. There are two ways to achieve this – one, you could opt for the diazepam drug – but these come in short supply, and what's more, they're highly addictive. On the other hand, having Snake smoke cigarettes tends to calm him down and have the added side effect of making him a more accurate sharpshooter – but obviously there's a tradeoff involved here between the amount of health that is depleted by you smoking the cigarettes

versus the added accuracy this lends to your sniping abilities. It's up to the player to weigh the pros against the cons based on the constant influx of health information that gets relayed to him through the User Interface (UI).

The player thus acts as an intermediary between Naomi Hunter and Solid Snake – he doesn't have complete control over Snake (in the sense that no amount of analog stick manoeuvring will really compensate for Snake's shoddy aim at times without the player regulating his body in one way or another), he doesn't have the wealth of knowledge that Naomi has either about prescription drugs and its effects on the body, but he isn't a complete spectator either and can use the information passed down from Naomi to the player in order to improve Snake's performance. This is made even more pronounced in *Metal Gear Solid 2: Sons of Liberty* – if Snake has been made to stand outside in the rain for too long, he catches a cold and will sneeze from time to time. Needless to say, this will cause a lot of complications once inside the tanker and trying to sneak your way past guards.

7.2 Liquid Snake

Liquid Snake is the twin brother of Solid Snake. He is a highly gifted soldier; well-versed in history, calculating, and a great geopolitical strategist. He is the leader of the now-turned-rogue black-ops unit FOXHOUND.

As a testament to his social engineering skills, he manages to fool Snake throughout the entirety of his mission by adopting the identity of his former mentor, Master Miller. This serves a variety of purposes: first, to keep tabs on his progress (see how far along he is) by providing him with help over a code line; second, use him as an unwitting cog in their plan to activate the nuke on *Metal Gear*; third, to eventually build confidence between himself and Snake by ratting out Naomi Hunter.

7.2.1 Motivation - The Selfish Gene

“In nature, family members don't mate with each other. And yet they help each other to survive. Do you know why? It increases the chance that their genes will be passed on to a new generation. Altruism among blood relatives is a response to natural selection. It's called the Selfish Gene Theory.” – **Liquid Snake to Solid Snake, Metal Gear Solid**^[Youtube]

Liquid Snake's prowess as a strategic thinker and exemplary soldier are a direct result of his inheriting all of Big Boss' soldier genes. But his awareness of the genetic landscape and his ongoing inferiority complex with regards to Solid Snake also tends to narrow his potential.

The main conundrum Liquid Snake finds himself in is that he is ultimately a victim of his own slavish convictions regarding evolutionary Darwinism. Liquid Snake is under the (misguided) perception that he received the brunt of all the recessive genes while Solid Snake was awarded with all the dominant ones.

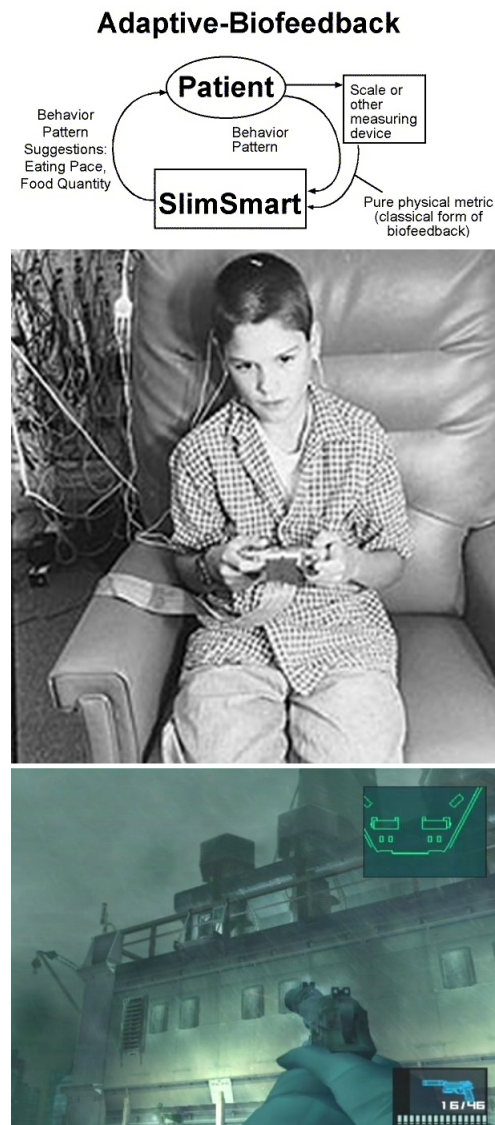


Fig. 8: (Top picture): Your interaction (as the player) with Solid Snake and Naomi Hunter constitutes a quasi-biofeedback loop. Unlike other videogame protagonists, Solid Snake's reactions to his environment remain to a certain degree outside the player's control. This is even more pronounced in the later sequels: in Metal Gear Solid 2, Snake will get sick if he spends too much time in the rain (Bottom picture). Being sick makes him liable to sneeze at certain inconvenient moments - to suppress this, the player can give him a psychotropic drug such as Diazepam. (Middle picture): NASA has patented a biofeedback videogame concept that trains people to change their brainwave activity or other physiological functions while playing popular off-the-shelf videogames.

According to Neo-Darwinian orthodoxy, this would mean that Solid Snake would be the superior of the two siblings. Even though he feels cheated and seems to blame Solid Snake for not being the true inheritor of Big Boss' genetic heritage, he still harbors an intense desire to preserve his gene pool by finding a cure to the 'genetic symmetry' problem so that his lifespan and that of the Sons of Big Boss may be extended. He states time and time again to his brother (Solid Snake) that he is intent on carrying out his genetic fate – ie. his genes tell him to put up a fight against 'natural selection' so that his genes will be carried to the next generation by way of 'natural selection'. In essence, he's trying to beat Lady Luck at her own game.

In his existentialist rantings, Liquid can be repeatedly heard referring to Richard Dawkins' 'Selfish gene' theory. This theory espouses that genes are inherently selfish – and that the only true act of altruism on the part of a gene is to be found among blood relatives. When a relative of the gene is in danger, its genes will command the individual to protect them, even if it ends up sacrificing the host organism. Dawkins postulates that genes have the capacity to recognize if their kin are in danger – and to make the organism perform a decidedly unselfish act on the part of its genes so that the gene itself will eventually pass on (in some form or another) to another generation. Hence Liquid's statement that "altruism among blood relatives is a response to natural selection". When viewed from this perspective, this would make humans and animals alike the mere servants of their constituent parts – 'selfish genes' that play the role of the proverbial 'puppetmaster'.

This serves as Liquid's rationale for saving the Genome Soldiers from the brink of extinction. And to do that, he would need to obtain the remains of Big Boss so that he can research his DNA more thoroughly – hence why it's among his list of demands from the US government.

7.2.2 Roy Batty and Liquid Snake

The likely source of his inspiration is a similar character from the movie *Blade Runner*⁷ – Roy Batty, played by Rutger Hauer in the movie.

Roy Batty is the latest iteration (NEXUS Series 6) in a long assembly line of cybernetic organisms produced by a major genetic-engineering corporation – Tyrell Corporation. As a practical failsafe (because of the NEXUS-6 line's capacity to have memories and emotional responses), the company gives each cyborg a fixed lifespan of roughly six years.

The cyborgs are mostly used as off-world colony slave workers – if one of them escapes from the off-world colonies and decides to travel to Earth, they are to be hunted down by special police squads known as "Blade Runners", whose sole duty is to put them into "retirement" – a friendly-sounding euphemism for

⁷ Even the music sounds similar at places – for instance, compare the game's 'Escape' theme from the soundtrack to the end credits theme Vangelis did for *Blade Runner*. When listening to the 'Escape' theme music track, go to 0:53 to hear the sound effects reminiscent of the ones Vangelis used in the *Blade Runner* soundtrack. There are doubtless other tracks in the *Metal Gear Solid* soundtrack that have a similar Vangelis vibe to them.

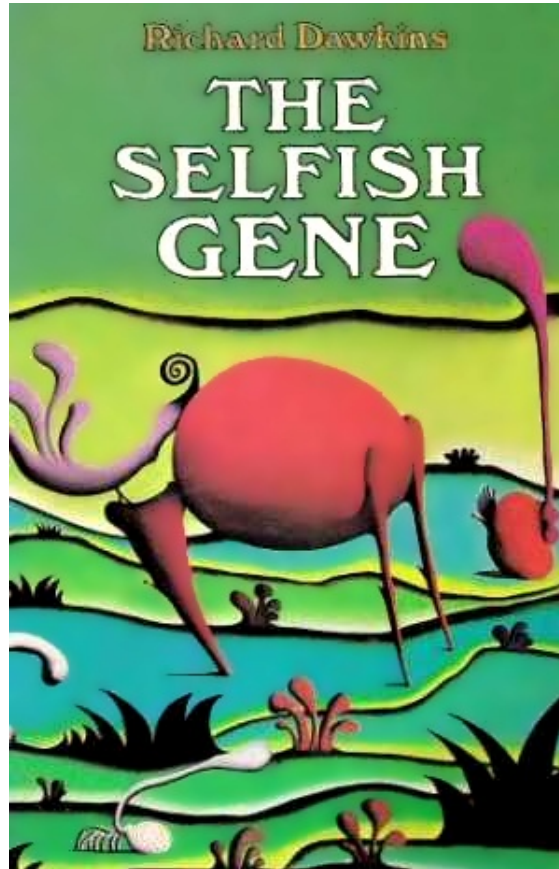


Fig. 9: According to Dawkins' book, *The Selfish Gene*, humans are basic survival machine automatons that - like robot vehicles - are blindly programmed to selfishly preserve their own molecules known as genes. Liquid Snake acts accordingly - he's trying to stave off decay by figuring out a solution for the clones' genetic symmetry. In a sense, he performs the act of altruism not as part of his own conscious decision - but rather by initiative of his genes. Since, according to Dawkins, genes only engage in altruism in concert with their kin and natural selection tends to favor group selection, Liquid figures that the only way to stay alive is by preserving his blood brothers, hence the 'Sons of Big Boss' revolution.

killing them.

Roy Batty, the leader of a renegade group of NEXUS-6 cyborgs that have travelled to Earth, instigates a rebellion of his own against the very company that created him. Unlike Liquid Snake in *Metal Gear Solid*, they have no doomsday device to grab hold of that will force the Tyrell Corporation into giving in to their demands. Instead, they opt for a more subtle approach by going through the chain of command. The eye geneticist Cho is approached first, but he offers no solutions other than referring them to JF Sebastian. After they have extracted all useful information out of him, he is subsequently disposed of. JF Sebastian is next on the chopping block – apparently the main designer of the NEXUS cyborgs. He leads them to the pivotal head – Eldon Tyrell, CEO of Tyrell Corporation. The vain hope in all this is that, by threat and intimidation tactics, Tyrell would be able to extend their lifespan.

But alas, the Tyrell boss offers no such respite. The ensuing dialogue between the two sheds some light on Liquid's conundrum as well:

Eldon Tyrell: The facts of life. To make an alteration in the evolvement of an organic life system is fatal. A coding sequence cannot be revised once it's been established.

Roy Batty: Why not?

Eldon Tyrell: Because by the second day of incubation, any cells that have undergone reversion mutations give rise to revertant colonies, like rats leaving a sinking ship. Then the ship sinks.

Roy Batty: What about EMS recombination?

Eldon Tyrell: We've already tried it. Ethyl methane sulfonate is an alkylating agent and a potent mutagen. It created a virus so lethal the subject was dead before he left the table.

Roy Batty: Then a repressive protein – that blocks the operating cells.

Eldon Tyrell: It wouldn't obstruct replication, but it does give rise to an error in replication, so that the newly formed DNA strand carries the mutation and you've got a virus again. But, uh, this – all of this is academic. You were made as well as we could make you.^{[Blade Runner: The Script][Youtube]}

7.2.3 Liquid's Achilles heel

"That's right! I'm just the leftovers of what they used to make you. Can you understand what it's like to know that you're garbage since the day you were born!?" – **Liquid Snake to Solid Snake, *Metal Gear Solid***^[Youtube]

What Liquid doesn't realize is that by buying wholesale into this notion of being the lesser of two cellular organisms and believing that his genes will ultimately restrict him from ever surpassing his genetically-imposed limits, he restrains himself unnecessarily both in physical and mental terms. After all, at the end



Fig. 10: (Top-left): Roy Batty - Rutger Hauer - in Blade Runner; besides the narrative similarities established in the accompanying paragraph, there are other similarities between Liquid Snake and the Rutger Hauer character. Both character and actor sport the blue eyes and blond hair that is the characteristic of the supposed Aryan ideal that race scientists strove after. Both are the product of genetic-engineering experiments; both wear essentially a long trenchcoat over their bare torso; both take off their top clothes in the final ensuing battle; both display an understanding of genetics. Both are filled with hate for their creator.

of the game Revolver Ocelot informs his boss (Solidus Snake) that the ‘inferior one’ won out after all – inferring that he knew all along that Liquid was the superior one after all, and that he had got it all backwards. It is likely that Liquid was deliberately fed this misinformation to see if it had any detrimental effect on his performance. In the end, it did.

7.3 Naomi Hunter

“It’s your genes... they make you predisposed towards violence!” –
Naomi Hunter to Solid Snake, Metal Gear Solid^[Youtube]

Naomi Hunter is part of Solid Snake’s support team. She has a background in genetic engineering and previously served as the head of FOXHOUND’s medical department prior to the uprising.

7.3.1 Involvement in Pentagon bioweapons program

Naomi conceals an ulterior motive for assisting Solid Snake in the mission. Unbeknownst to Snake until the latter stages of the mission, Naomi happens to bear intense resentment against Snake for killing her surrogate brother in Zanzibar. This seems to be understandable for a number of reasons – Naomi suffers from severe psychological problems due to what she experienced in her home-country and because of the lack of maternal/parental love. Thus she has no real identity of her own – hence why she turned to genetics in the first place.

After she learns her ‘big brother’ has died, she turns her hatred for Snake into a motivating stimulus that perfectly complements her identity struggle. She takes on the identity of someone else – a real doctor called Naomi Hunter (apparently only ‘Naomi’ is part of her real name and she has no real surname). Through impersonating this person, she succeeds in getting to work for a major private pharmaceutical corporation that is jointly working for the Pentagon on a project to provide medical treatment to the genetically altered soldiers known as the Next-Generation Special Forces.

It is not known whether or not she knew about this before being recruited by the company, but during her stay at the company, she learns Frank Jaeger may not be dead after all. Feeling pity for what little was left of her ‘big brother’ – essentially kept under harsh and overly excessive pharmacological control that disrupted his senses and cognitive functions – she helped him escape from the laboratory and implicated herself in aiding and abetting the murder of Dr. Clark – FOXHOUND’s chief medical scientist.

With Clark gone, Naomi assumes the position of head geneticist of the FOXHOUND medical lab. She eventually becomes involved in the Pentagon’s secret biological weapons program, FOXDIE.

7.3.2 Motivation – Genetics As An Axiom For Human Potential

“You mustn’t allow yourself to be chained to fate, to be ruled by your genes” – **Naomi Hunter, Metal Gear Solid**^[Youtube]

After being exposed as a spy and placed under house arrest by Colonel Campbell, Naomi Hunter has an epiphany on her career choice at the end of the game.

Born a ‘dirty little orphan’ in Rhodesia (what would be modern-day Zimbabwe today), Naomi lacks a sense of self-identity as she never got to know her real parents. When her surrogate brother (Frank Jaeger) decides to take her to America, suddenly all sorts of career opportunities open up to her that she wouldn’t have enjoyed at home. Of these, she seeks refuge and salvation in science – genetic engineering, to be precise.

Naomi’s hope was that by analysing her genes and cracking the underlying code of specific genetic sequences, she would be able to deduce who she really is and what she is meant to be doing, and ultimately be able to track down her family lineage and find out who her real parents were.

But at the end of Solid Snake’s mission she feels disillusioned with her ‘faith’ in genetic engineering. She is forced to conclude that for all her accomplishments in the field of genetics, it never gave her any fulfilling answers to the questions she sought in the first place. Moreover, she is now beginning to ponder whether it is extremely backwards (instead of ‘progressive’) to put everything down to one’s “genes”. In this regard, she takes the opposite direction from the Dawkinian school of biological determinism.

In her revised opinion, genetics merely determines the kind of path and capabilities that a person can take – but it does not in any way imply one particular path predetermined by one’s genes. Seen from that perspective, it is possible for Solid Snake to redeem himself – not to merely continue going down the path of a hired killer, but to travel down an alternative path – towards a future entirely unrelated to war and destruction.

What led to her reconsidering her previously unshakeable conviction? Perhaps it came about as a result of what she observed during the Shadow Moses mission; before the mission, she thought of Solid Snake as little more than a ruthless killer without any regard for human empathy. Halfway through the mission, she is forced to revise her assessment – there is still a human aspect to Snake despite his past transgressions (for instance, he cares about Meryl, and depending on whether or not you survived the torture session without giving in, he is even willing to muster up the energy to endure a particularly gruelling torture session to keep Meryl alive).

But perhaps most worrying to her conscience would be the pathological nature of Liquid Snake, Snake’s brother and in many ways his twin shadow. If anything, it served as an example of where her overly fixated perspective on genetics might lead to.

7.4 Psycho Mantis

“Humans weren’t designed to bring each other happiness. From the moment we’re thrown into this world, we’re fated to bring each other nothing but pain and misery.” – **Psycho Mantis, Metal Gear Solid**^[Youtube]



Fig. 11: As a geneticist, Naomi is very useful for providing Snake with information about all sorts of psychotropic drugs that might temporarily improve Snake's performance, such as diazepam (better known as Valium).

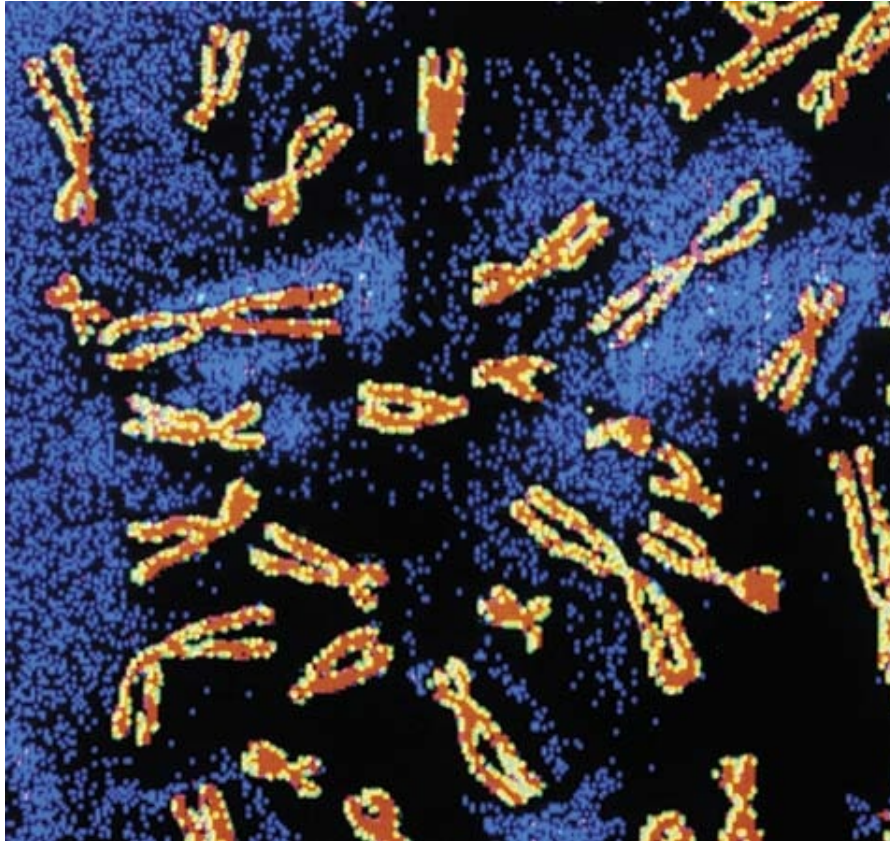


Fig. 12: Is genes all there is to a life organism? A resounding 'no', gene-centric Naomi is forced to conclude. She would be part of a growing number of evolutionary biologists and scientist swho have to come to view the DNA and gene-centric view of evolution with extreme skepticism, suspecting a deterministic ideology is afoot here*.



Fig. 13: Among his many skills, Psycho Mantis can use extra-sensory perception to peer into people's minds and read his/her future. In the movie *The Shining* (a Stanley Kubrick film), the family of a prolific writer decide to be the caretakers of a hotel somewhere in the middle of nowhere to get his mind back on track after experiencing writer's block. His young son, Danny, continually catches glimpses of the hotel's ugly past and scary premonitions of future events involving ghost-like figures and mass slaughter. His father eventually becomes subsumed by some malevolent spirit and starts playing with the psychotic fantasy of slaughtering his family. According to an interview with Kubrick, both Danny and the cook of the hotel, Halloran, can telepathically communicate with each other and be able to perceive these visions due to both of them having an innate gift known as extra-sensory perception - which Kubrick wholeheartedly thought to be real**.

Psycho Mantis is one of the members of FOXHOUND now under Liquid's command. He represents a particular stratagem of military intelligence that the Russians tend to invest more heavily in than their American counterparts.

7.4.1 Psychic powers

As a matter of principle, Psycho Mantis has no need for his fists or guns of any sort. From an early age, Mantis has learned to utilize techniques such as extra-sensory perception, clairvoyance and psychokinesis to confuse his adversaries and thus wage a more sophisticated form of warfare against them.

Some brief explanation of the terms alluded to above is in order.

7.4.2 Extra-sensory perception (ESP)

“ESP research: determining the properties and condition of objects without ever making contact with them and “reading” peoples’ thoughts.” – **Timothy L. Thomas, *The Mind Has No Firewall, Parameters* (Q1 1998), US Army War College Quarterly**

Psycho Mantis flaunts these abilities at several points throughout the game. As part of Liquid Snake's plan to retrieve the nuclear detonation codes so Metal Gear REX is ready to launch a nuclear weapon, Mantis is instructed to peer into DARPA chief Donald Anderson's mind and obtain the code. This attempt was a failure on his part – Donald Anderson had surgical implants attached to his brain that acted as a firewall for the mind – preventing his thoughts from being read. (ArmsTech CEO Donald Baker later informs Snake that this is more or less the rule rather than the exception among top brass in the defense industry – this is the first sign that Snake has been fed misinformation by the (purported) DARPA chief who died of a 'stroke').

Because Meryl Silverburgh has no such mental safeguards, she was easy pickings for Psycho Mantis' psycho-tronic warfare. He takes complete possession of Meryl at several instances to create a sizeable distance between Snake and her – this way he can control her without Snake catching on. The first time this happens, Snake experiences a mental feedback loop of some sort – Meryl heads for the elevator without waiting for Snake to catch up, then she fires an entire round of ammo at Snake for no real reason – merely to get him off her back – then the elevator finally goes up. After this, we get to see an image of Psycho Mantis inexplicably popping up out of nowhere.

When inquiring on what he thought he just saw, Naomi says it's most likely 'psychometric interference' by Psycho Mantis. Again, this seems to be mostly grounded in real parapsychological research if we go by the following excerpt of the aforementioned US Army War College article, “The Mind Has No Firewall[14]“:

“Solntsev also examined the problem of “information noise”, which creates a dense shield between a person and external reality. This noise may manifest itself in the form of signals, messages, images, or

other items of information. The main target of this noise would be the consciousness of a person or a group of people. Behavior modification could be one objective of information noise; another could be to upset an individual's mental capacity to such an extent as to prevent reaction to any stimulus. Solntsev concludes that all levels of a person's psyche (subconscious, conscious, and "superconscious") are potential targets for destabilization." – **Timothy L. Thomas, The Mind Has No Firewall, Parameters (Q1 1998), US Army War College Quarterly**

Indeed, the "noise"/"interference" does seem to put up a shield between Meryl and her actual surroundings. Behavior modification seems to be most definitely at play here – in the scene described above, Meryl is not herself and seems to be in control by Mantis himself – but notice also that her mental capacity is so destabilized that she will also not respond to Snake's pleas to 'snap out of it'. This will segue nicely into the following section of this paragraph, which concerns mind control – and the way in which Mantis actually achieves this hypnotic spell he casts on people's minds.

7.4.3 Psychokinesis and mind control

"Psychokinesis research: interfering with the thoughts of individuals, on either the strategic or tactical level." – **Timothy L. Thomas, The Mind Has No Firewall, Parameters (Q1 1998), US Army War College Quarterly**

The insurrection would have been impossible to pull off without loyal infantrymen safeguarding all the possible points of entry to the base – and, of course, they would prove indispensable for basic patrol, pursuit and reconnaissance work.

Located at the disposal facility were Next-Generation Special Forces units and Genome Soldiers – both having been subjected to gene therapy and being digital copies of Big Boss in their own right. Though some of them joined the FOXHOUND revolution on their own accord, the vast majority of them had to be conditioned in some way to go along with FOXHOUND's takeover of the base.

This is where Psycho Mantis' brainwashing techniques came into play. He managed to successfully brainwash the vast majority of the soldiers through a method of psychokinesis that puts the subject into a suggestible state with some form of psychic driving (a process whereby the victim is subjected to a continuously repeating audio message on tape – in this case, it's a hymn that is looped over and over again). The end result is highly advantageous from a strategic standpoint: highly motivated obedient soldiers with the same 'soldier' genes that distinguish Liquid and Solid from the rest of the pack.

7.4.4 Telekinesis

“Telekinesis research: actions involving the manipulation of physical objects using thought power, causing them to move or break apart – used against command and control (C2) systems, or to disrupt the functioning of weapons of mass destruction.” – **Timothy L. Thomas, The Mind Has No Firewall, Parameters (Q1 1998), US Army War College Quarterly**

Psycho Mantis is able to move physical objects by sheer willpower alone. He amply demonstrates this skill to the player by levitating statues, chairs, portraits inside the room and throwing them at Snake. It is ironic that this skill will ultimately redeem himself in the end. After having defeated him, he opens a hidden door for Snake that will lead him to Metal Gear REX’s underground base. The last sentence he utters is a poignant reminder that had Psycho Mantis not given in to his anger and bitterness felt early on in his childhood, he could have used his extraordinary skills for noble ventures:

“This is the first time I’ve ever used my power to help someone. It’s strange... it feels... kind of... nice.” - **Psycho Mantis, Metal Gear Solid** <http://www.youtube.com/watch?v=WpG9XIfkE0> [Youtube]

Another parting gift by Mantis – because Mantis possesses clairvoyance abilities (giving him the ability to observe objects that are not visible to the naked eye), he implants thoughts into Meryl’s mind that enable her to correctly traverse a path littered with unseen Claymore mines - all without incurring harm to herself or Snake.

7.5 Frank Jaeger/Gray Fox

“Technological and scientific innovation need not have direct bearing on nuclear or virological research to contribute to the making of weapons of mass destruction.

After all, the Ninja was born of genetic engineering and cybernetic research, which could easily have healed a civilian rather than improved upon a soldier. A scientist cannot plead naivete to the practical products of their own research. The consequences must be anticipated, and the ethical burden of a newly developed technology must ultimately rest with the individual researcher.” – **Nastasha Romanenko, In The Darkness of Shadow Moses: The Unofficial Truth, Metal Gear Solid 2: Sons Of Liberty**

Solid Snake last came face to face with his former friend in Zanzibarland – on opposite sides of the fence. Both felt it their duty to fulfill their part as proverbial pieces on a grand chessboard – an obligation ranking above friendship or family values. After Snake’s mission in Zanzibarland, Gray Fox was presumed to have died at the hands of his lifelong friend, Solid Snake. This caused Naomi some considerable grief given that Frank Jaeger was her only connection to the

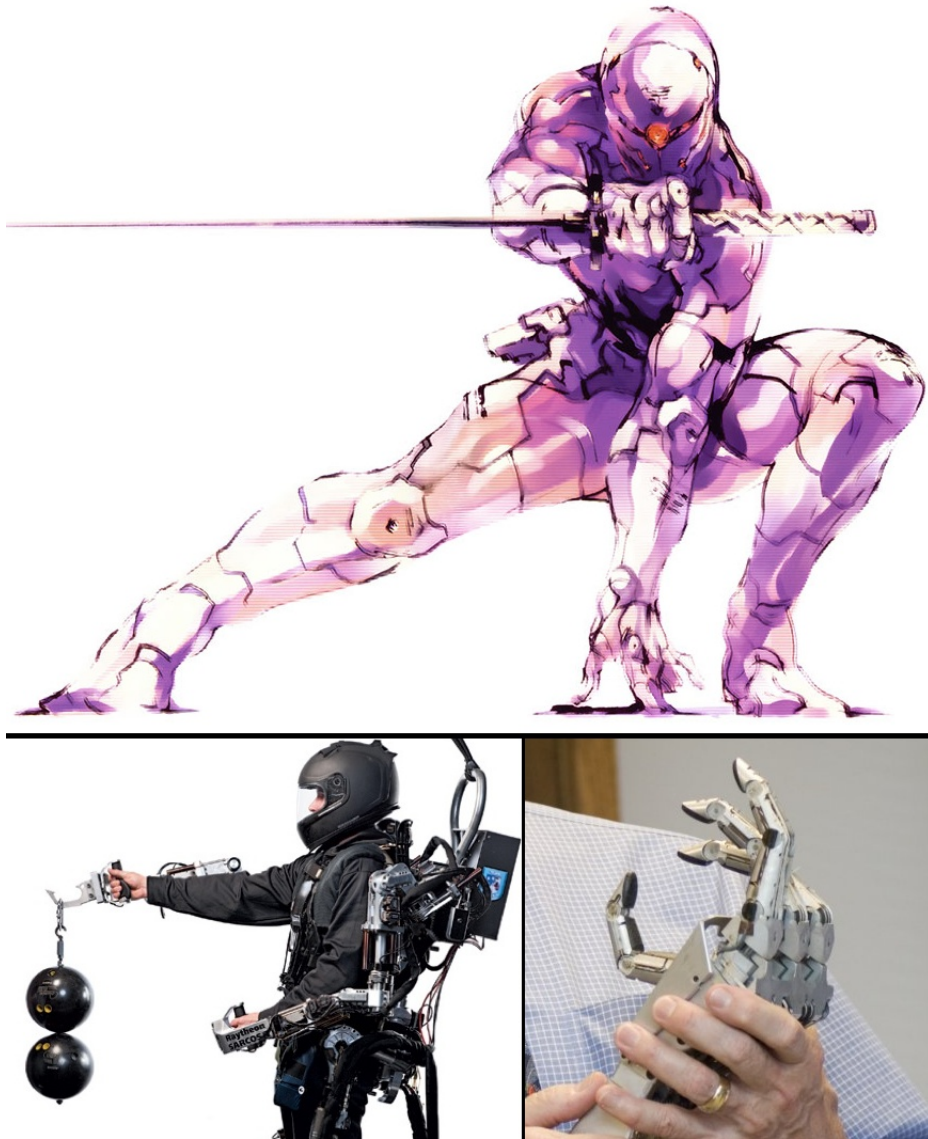


Fig. 14: Just like the game foreshadowed (above), the military applications of exoskeletons have not been lost on the likes of Raytheon (Raytheon Sarcos exoskeleton) and Lockheed Martin (Human Universal Load Carrier).

past (Jaeger never had the stomach to inform Naomi about the truth behind his decision to raise Naomi – he killed her parents only to show reluctance at having to kill her too – as he later tells Snake: “I was young then, and couldn’t bring myself to kill her too”)

7.5.1 Transhumanist soldier

“We’re not tools of the government or anyone else. Fighting was the only thing, the only thing I was good at, but... At least I always fought for what I believed in. – **Frank Jaeger/Gray Fox, Metal Gear Solid** <http://splicd.com/F64m6nD14bw/6454/10205> [Youtube]

In truth, Frank survived the fight – albeit horribly wounded and left hanging by a mere thread of his life (most of his body and limbs had been lost due to the impact of several landmines). FOXHOUND’s chief medic, Dr. Clark (nickname ‘Para-Medic’), relished the opportunity to use him as a guinea pig for a new type of project that would combine the field of gene-therapy with cybernetics.

Using the remains of his body as the base for a new type of exoskeleton suit with metallic prosthetics, he was metamorphosed into a ‘cyborg’ ninja. To keep him properly sedated and to alleviate some of the pain, he was fed a heavy dosage of psychotropic drugs. This went on for the better part of four years until Naomi Hunter joined FOXHOUND’s medical staff as an assistant to Dr Clark.

Upon learning this cybernetic ‘Ninja’ was in actuality Gray Fox, she came up with a plan to help him assist in his escape, and take out Dr Clark in the process. (the latter was an act not out of revenge, but by orders of Eva – Dr Clark also happened to be one of the founding members of The Patriots – and therefore ranked high on the hit-list of the anti-Patriots faction that Eva represented).

7.6 Sniper Wolf

Sniper Wolf is an Iraqi-Kurdish female sniper of Unit FOXHOUND.

Given the environment in which she was raised in and the harsh living standards that came par for the course (as a Kurd she would be hunted down like dogs and a friend or relative would wind up dead on a daily occasion), she became to identify with the wolf as a personification of herself. Hence it is of no surprise that she objected when the terrorists were planning to put the dogs out of commission when they took over the facility – hence that is why they have given her the nickname. She regularly tends to the wolves as if they are her own family.

7.6.1 On the Origin Of Domestication

“In the Middle East, we don’t hunt foxes, we hunt jackals. Instead of foxhounds, we use royal harriers.” – **Liquid Snake, Metal Gear Solid** [Youtube] [Youtube]



Fig. 15: Sniper Wolf is most likely modelled after famous World War II Soviet Union female sharpshooters (unlike the militaries of other nations such as the US, in the Marxist state both men and women were trained to become snipers). Pictured below is Nina Alexeyevna Lobkovskaya, Russian sharpshooter in WWII, managing an impressive 308 kills.

Dogs all seem to share one common ancestor: the wolf. There is some debate as to whether wolves ‘evolved’ into dogs by ‘artificial selection’ or ‘natural selection’ (Dawkins would argue the latter in this article from the Times Online, “The Truth Dogs Reveal About Evolution[16]” – but what he really seems to imply is that it’s a mixture of both) – but let’s focus on ‘artificial selection’.

Obviously, a wolf would be a rather dangerous animal to have around as a pet – and too unreliable and self-deterministic to be used as a hunting dog. So a ‘domestication’ and ‘breeding process’ had to be enacted by humans to instill certain traits into the offspring of these animals. Through trial and error, naturalists discovered that by interbreeding less ferocious samples of the species, the outcome would be an even more docile pup. Gradually, by selective breeding, these ‘wolves’ would lose their survival instinct and ‘flight distance’ and instead come to view humans in the same way as they would their mother or father.

This was where the original idea for eugenics came into being – naturalists were convinced that if specific traits could be inculcated into animals by selective breeding programs, the same could naturally be applied to humans. But without digressing too much, at a specific point in time, Dawkins and Coppinger would wager that the wolf lowered its self defense – what they like to term its ‘flight distance’ – the amount of distance between the wolf and a human before the wolf senses danger and makes off or (if aggravated) attack. They would argue this lowering of the flight distance was due to the wolf needing to adapt to its environment and having to find a new food source.

So, if this phenomena – what Dawkins likes to term ‘self-domestication’ – came about naturally and explains how wolfs eventually became to be domesticated dogs, could the same be applied to humans or social organizations? Do they, too, lower their flight distance over time and eventually become the prey and the mere cattle of a more able predator? Or do they fight back and try to retain their innate survival instinct? And, if the latter, do they fail as a consequence? That would be as nice a metaphor as any and in keeping with the ‘survival of the fittest’ mantra of Herbert Spencer and Darwin alike.

7.6.2 Social organizations and subsumation

During the Cold War, the CIA-led special operations unit FOX featured such notable names as Naked Snake (AKA Big Boss) and The Boss (Big Boss’ mentor). It wasn’t until after Snake had left the unit and a decade had passed that FOX eventually became rogue and was dead set on attacking the Soviet Union. Obviously fearing the repercussions of such a bold move, Naked Snake and Roy Campbell were sent in to subsume the threat. They formed a special outfit called ‘FOXHOUND’ (the ‘foxhound’ hunts the ‘fox’ – get it?) that had as its specific mission statement to fight against the rebelling members of FOX, and clear the names of the remaining FOX members who were not made complicit in FOX having gone rogue.

After the events of Metal Gear Solid: Portable Ops (during which this rebellion takes place), FOX is put to pastures and FOXHOUND takes its place. This takes us to the series of events surrounding the first Metal Gear installment,



Fig. 16: The wolves that Sniper Wolf looks after are what's known as wolf dogs - a cross between huskies and alaskan wolves. originally intended for use as sled race dogs, eventually it turned out they didn't have the stamina and power desired. on top of that, the 'gentleness' trait of a dog wasn't achieved - instead they ended up more like wolves. according to snake, they were of no suitable use for dog sled races.

Metal Gear (for the MSX/NES). Gray Fox⁸ is being held captive in rogue state Outer Heaven and Solid Snake (still a rookie at this point) joins FOXHOUND and is sent in to get him out. It eventually turns out that Big Boss himself had not only chosen Solid Snake specifically to head the rescue operation (he could count on him being relatively inexperienced and being the recessive one out of the two ‘Les Enfants Terribles’ designer sons), but that he was behind Outer Heaven itself – thus, FOXHOUND was compromised from the top down.

After Big Boss was defeated in battle by Solid Snake, Roy Campbell assumed command of FOXHOUND. He retired somewhere between 1999 and 2005, with Liquid Snake taking his place. Under Liquid’s leadership, FOXHOUND became rogue like its predecessor FOX before it – and it took a retired Colonel Campbell being coerced into donning his CO cap again and a similarly blackmailed Solid Snake (who had given up on the job after Zanzibar) to take them out of commission.

Fittingly, instead of the ‘fox hound’ subsuming the ‘fox’ like before, this time a venomous snake was sent in that would infect the ‘fox hound’ and let it die a slow death – but at the snake’s own expense eventually. We see here a recurring pattern of one particular social organisation becoming too foolhardy – too risky – and losing that ‘optimal flight distance’ it once had – that convenient middle ground between too bold and too flighty. It is then domesticated in rapid succession by a follow-up and eventually subsumed – but the successor will repeat the same mistake over again and the cycle repeats itself.

7.6.3 Humans and self-domestication

“I finally understand. I wasn’t waiting to kill people. . . I was waiting for someone to kill me. . . A man like you. . . You’re a hero. Please. . . set me free. . .”⁹ – **Sniper Wolf, Metal Gear Solid**^[Youtube]

⁸ Gray Fox (the character) is most likely a reference to Darwin’s Fox. This was a peculiar wolf found on San Pedro Island that was mistaken by Charles Darwin for being a fox – hence the title Darwin’s Fox. He took a specimen with him during his infamous HMS Beagle voyage. According to Wikipedia, it was long held that Darwin’s Fox was a subspecies of the South American Gray Fox[15].

⁹ Several of Sniper Wolf’s cutscenes evoke memories of Stanley Kubrick’s Full Metal Jacket. Just like in the movie, a female sniper shoots a soldier (Meryl Silverburgh in this case) in the field with the intention of drawing in more comrades that will come rushing in to his/her aid. Snake is left with no option but to retreat, find himself a sniper rifle and return back to the position where Meryl was shot so he can try to take her out. Unlike the North-Vietnamese sniper in Full Metal Jacket, Sniper Wolf does not seem intent on killing Meryl – when Snake returns, Meryl is gone and has been taken into captivity. It’s up to the player to decide later on whether Meryl will live or die (the canonical ending is the one where she lives. Before Metal Gear Solid 4: Guns Of The Patriots was announced, it was erroneously assumed that Meryl had died.)

Another sequence highly reminiscent of Full Metal Jacket is the one where Sniper Wolf (as a final request to Snake before she dies) asks him to hand her the gun she has been using up until this point.

“My gun. . . give it to me. She’s a part of me. . .” – Sniper Wolf, Metal Gear Solid

This is part of the military indoctrination process – what’s known as the Rifleman’s Creed. The intent is to create a symbiotic bond between the soldier’s mere existence as a human being and his military artillery, such as a rifle. It states in no uncertain terms that a soldier

But there's another parallel. Psycho Mantis made it known to Solid Snake that this "selfish, atavistic desire to pass on one's seed" inherent in each and every living thing on this planet was enough to make him physically ill. In a similar vein, Sniper Wolf has no real wish to pass something on to the next generation – whether it be an idea/concept or a child.

Time and time again, it is established that nearly every FOXHOUND member Snake takes out has given up the sheer willpower to pass something on because of what they experienced in their traumatic childhood that shaped them to become the way they are now. You could make the case that Sniper Wolf was shortening her "flight distance" partly out of some "self-domesticating" process – but the only domestication process available in her line of work is to either become a stooge for your paymasters (in which case you become the proverbial 'dog of war'), or stick to your pride and hope that someone on the battlefield will eventually put you out of 'retirement'.

7.7 Nastasha Romanenko

"According to the military doctrine which is the basis for NATO expansion, a preemptive nuclear strike may be undertaken if there is a sufficient threat of a regional conflict spreading to a large-scale war."¹⁰ – **Nastasha Romanenko, Metal Gear Solid**

is useless without his rifle, and that he should protect it as if it were his best friend. After having to recite this 'creed' day in day out, it becomes so ingrained in the person's mind that he or she really starts to identify with this 'piece' of wood and iron as a surrogate spouse. As can be seen in Sniper Wolf, it has certainly had its desired effect on her[17, 18].

¹⁰ What Nastasha is referring to here is what is known as the NUTS (Nuclear Utilization Target Selection) doctrine – which has been formally adopted by NATO. In essence it is the exact opposite of MAD (Mutually Assured Destruction), which was the agreed-upon doctrine between the United States and the Soviet Union during the Cold War.

MAD is a doctrine that acts on the presupposition that both competing countries have such a massive stockpile of nuclear weapons that it would be foolhardy for any of the two nations to strike each other – since it would result in the annihilation of both. Several science fiction novels and movies entertain such a scenario actually unfolding – but by the involvement of an unknown third party – a sentient supercomputer that provokes Russia into attacking the US with a full nuclear payload by attacking it [Russia] first with nuclear weapons – resulting in the annihilation of both countries and much of the worldwide human population – but leaving the sentient supercomputer (which is largely situated underground) mostly intact to inherit the Earth along with its progeny. Examples such as Harlan Ellison's *I Have No Mouth And I Must Scream* comes to mind, as well as the movie franchise which plagiarized its central plot premise – *The Terminator*.

After the fall of the Soviet Union and the Berlin Wall, MAD largely fell out of favour due to hubris on the part of the western allies. Lately there has been much heated controversy surrounding the missile shield being built in Poland and Ukraine – which Russia regards as an imminent threat to its nuclear deterrence strategy.

President Obama has not been forthright on this issue – in this misleadingly titled article, 'Obama scraps Bush-era Europe missile shield', it says that the previous missile shield program has been 'scrapped' in favor of a more cost-effective and proven equivalent. It thus by no means lauds the end of this provocative gamble in nuclear standoffs – and the rhetoric about it being intended for a hypothetical Iranian 'missile threat' reeks of regurgitated Bush-era war propaganda.

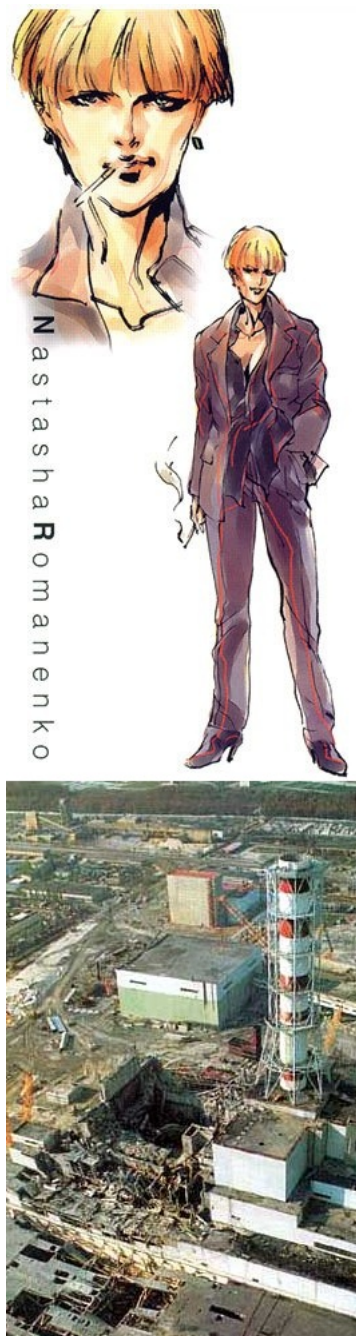


Fig. 17: This Ukrainian woman holds very strong views on the issue of nuclear technology - partly as a result of losing her parents and being rendered infertile by the radiation in the Chernobyl Disaster. The number of people she portends to have died as a result of the disaster has been proven to be the result of widespread misinformation on the part of the media***.

Nastasha Romanenko is a freelance Ukrainian weapons analyst. She provides Snake with information on nuclear weapons and general weapon systems through codec.

DIA (Defense Intelligence Agency) officer Richard Ames (coincidentally her ex-husband) forced her into accepting the mission assignment. As a member of NEST (Nuclear Emergency Search Team), she would prove to be an essential asset to Snake's support team given her immense wealth of knowledge on nuclear matters.

As she became privy to all the shenanigans of the mission and Ames' somewhat coy demeanor, she started to suspect more sinister motives were afoot here. Eventually she learns that a cabal led in part by Ames and Secretary of Defense Jim Houseman are really running the show – and were using Snake not as part of a rescue operation, but as part of a contingency plan that would leave Metal Gear REX intact at the expense of every single living thing inside the base.

The information that Snake was to retrieve from Kenneth Baker (CEO of ArmsTech) – the data disc – was the only item of importance, but seeing as Ocelot (a double agent working in secret for George Sears, the 43rd President of the United States) made off with the data and Metal Gear REX was already destroyed by Snake, there was no further reason for The Patriots to muck about. It's at this point that Jim Houseman exerts complete control over the operation and starts removing key personnel from Snake's support team, eventually removing Snake's CO entirely – rendering him a sitting duck. Being an asset of The Patriots, Houseman then orders a nuclear strike on the facility – in an effort to cover up the whole event.

More and more Nastasha begins to realize that, given her security detail, she is not safe, either. To protect herself, she attempts to transmit important data from her cell phone to a remote server whenever Ames isn't around (hint: the toilet). But Ames later reveals to her it was all fruitless anyway – the military equipment they installed at her home in order to communicate with Snake intercepted the 'data' before it ever got to its destination.

7.7.1 Motivation – Abolition of Nuclear Weapons

There is a heavy-handed nuclear weapons abolitionist bend to the Metal Gear Solid series – but nowhere is this more pronounced than in Nastasha's character.

The McGuffin of the game is a large bipedal tank capable of launching a nuclear warhead without the need for a rocket propulsion system. This makes it undetectable by radar. Conveniently, Metal Gear REX falls outside the scope of any currently existing nuclear non-proliferation treaties – and can ostensibly be sold as a theater missile defense system with the client remaining none of the wiser of its capacity to carry and fire ICBMs.

Meanwhile, Secretary of Defense Robert Gates – an accomplice in the Iran-Contra scandal, friend of foreign policy hawk Zbigniew Brzezinski, and most likely the founder of the CIA's Arab Legion – seems as determined as ever to get a missile shield into place[19, 20, 21].

Whoever gets hold of Metal Gear REX would cause an immediate rift in the global power structure and potentially upset the future signing of any START-type treaties. For those unfamiliar with the Cold War, these were treaties signed between the Soviet Union and the United States aimed at reducing the stockpile of nuclear weapons. At worst, a weapon like Metal Gear REX could be the prime instigator for World War III – as it gives any country in the world a first-strike capability that other nationstates will find hard to counter.

Obviously the recurring anti-nuclear message is an issue Hideo went to great lengths to include all throughout the games – he laments that the current generation was born into a world where nuclear deterrence capacities are regarded as the norm. Hideo has said in an interview with a videogame website, that by including these messages into his videogames, he hopes he can get people to think about the need for ‘wars’, ‘armies’ or ‘nuclear weapons’.

8 Government coverup

The Shadow Moses Incident, if ever brought to light, would bring so many illegitimate black-ops activities by the federal government into the spotlight that it would put a massive dent in the US government’s credibility.

8.1 Plausible deniability

Instead of outright denying the story, then, the US government instead opts for a more subtle approach to information warfare – namely, muddy the waters. It presents to the public what it purports to be a factual account of the incident (while in reality being merely a tissue of lies and omissions), and through the fourth branch of the government, the media, it attempts to ridicule any alternative viewpoint that might go against the official story.

8.2 Nastasha Romanenko’s book

In an effort to reveal the truth on what happened that day, Nastasha Romanenko pens a hefty book detailing her involvement in the events leading up to the Shadow Moses Incident. Mainstream media coverage veers from semi-serious op-eds to complete disbelief.

In the second game (Metal Gear Solid 2: Sons Of Liberty), it is established that The Patriots see themselves as the arbiter of all information trafficking – they want to control all flows of information and the ability to gauge the ‘accuracy’ or ‘context’ of such information before allowing it to be released in the wider world. From a Darwinian perspective, they act as the process of ‘natural selection’ – only certain ‘genes’ (in this case Memes – units of information) are allowed to pass themselves on to the next generation (or, within the context of this example: the written word; the Internet; music; movies; documentaries; videogames). But even with The Patriots’ vast monopoly of the media and its sway on public opinion, they are still not able to exert their control each and every book that gets printed by a small publishing house.

8.3 Psy-op piece

“But even if you had managed to get this data out into the world, that wouldn’t have guaranteed your safety. No one would have believed yet another conspiracy theory, least of all the press.” – **Richard Ames to Nastasha Romanenko, In the Darkness of Shadow Moses : The Unofficial Truth, Metal Gear Solid 2: Sons Of Liberty**

So in the case of Nastasha Romanenko’s book, *The Patriots* decide to engage in another operation – that of a counter-psychological operation (psy-op in short). They get another author, a ‘purported’ beat reporter who appears to be nothing of the sort, to write a totally fictitious and off-the-wall backstory around Nastasha Romanenko’s book – and release it as an unofficial abridged version of Nastasha’s book.

This book, called ‘*The Shocking Conspiracy Behind Shadow Moses*’, by Gary McGolden, reveals its mock-satirical intent early on in the story. It begins with the author revealing to the reader that he was abducted by aliens in his early childhood – and that ever since then he has a small hole behind his ears. After this mundane excursion into UFO/Area 51-territory, he starts weaving in Nastasha Romanenko’s *Shadow Moses* book into the largely fictional backstory that is the whole premise behind his book¹¹.

By mixing in the ridiculous with the factual information provided by Romanenko, they (*The Patriots*) succeed in discrediting the whole story in the court of public opinion. Eventually, *Shadow Moses* joins the pantheon of ‘conspiracy theories’ that are so often the focus of ridicule by the mainstream press. Just like in the real world, the kneejerk attitude to label everything and anything a ‘conspiracy theory’ betrays a certain self-governing mindset – an analogy can perhaps be found in George Orwell’s *Nineteen Eighty Four*/1984. In that book (and the very good 1984 movie), basic trains of thought are divided into roughly two categories: ‘doublethink’ and ‘thoughtcrime’. The language itself has been butchered so immensely that almost all semblance of meaning has been lost, and the public has been rendered illiterate to the point that they can no longer

¹¹ An obvious sign (as if it needs any telling) that Gary McGolden has concocted a satirical piece can be found in the name given to his partner-in-chief, John-Dee (‘a hardcore Alaskan and a tuna fisherman’, apparently). He approaches this man for advice on how to get into the offshore nuclear disposal facility (*Shadow Moses*), which is off-limits to the general public. Besides the fact that the solution he comes up with is patently absurd, the name is the biggest give-away that the author is having some fun with its readership – ‘John Dee’ (1527-1608) was by all accounts the first international secret agent in world history, and the inspiration behind Ian Fleming’s character James Bond.

Like Bond, John Dee was a secret agent travelling all across the world at Her Majesty’s behest (at the time Queen Elizabeth I of England). He used ‘007’ as his personal alias to the Queen – the double ‘O’s were supposed to represent her Majesty’s eyes (as in: John Dee served as her majesty’s eyes and ears while abroad). John Dee’s main business while travelling the world was in promoting ‘free trade’ – in essence, what this meant was getting foreign countries to adopt and work with Britain’s financial system with as minimal amount of fuss as possible. This could be a likely explanation for why Ian Fleming’s character has as his last name ‘Bond’ – as a reference to the stock-in-trade (pun not intended) of his real-life inspiration[22, 23].

argue or debate something based on the relative merits of a given theory – nor do they feel any need to pontificate or elaborate on a given subject unless told by the established media to talk about it. What’s more, the language does not allow for any of those subtleties.

‘Thoughtcrime’ encompasses all negative things that could ever be attributed to a given subject – whether it be ‘plagiarism’, ‘fraud’, ‘anti-government sentiments’, ‘conspiracy theory-mongering’, ‘heresy’, and so on. In a similar way, the word ‘conspiracy theory’ is used today as an all-encompassing term to swipe any subject under the rug and provoke an instant knee-jerk reaction amongst one’s peer group – to get them to regard the individual engaging in ‘conspiratorial thinking’ as a ‘nut’ or a ‘crazy person’. The relative merits and the arguments which he presents to support this theory does not even so much matter – what matters is that he has been attached with this stigma that automatically excludes him from his peer group who regard themselves to be relatively sane.

9 Meaning behind words/names/terms

For more trivia, visit IMDB’s Trivia page for Metal Gear Solid.

Name/word	Meaning	Object
Asymmetry Theory	By this, Liquid is probably referring to the concept of ‘genetic diversity’.	Concept
‘brave, new world order’	‘brave, new world’ obviously refers to Aldous Huxley’s dystopic novel ‘Brave New World’; ‘New world order’ refers to the term bandied about by politicians as diverse as Mikhail Gorbachev, George H.W. Bush, Henry Kissinger, Bill Clinton, Gordon Brown, and numerous others – it was also used in a shortened form by Adolf Hitler (‘New Order’). It refers to a drastic upcoming change in world policy and society. It was also the subject of H.G. Wells’ non-fiction books ‘The New World Order’ and ‘The Open Conspiracy’.	Dialogue excerpt

Depththroat	Pseudonym adopted by Frank Jaeger to pass information to Solid Snake anonymously (people who have played Metal Gear 2: Solid Snake will be able to recognize immediately who is doing this). A reference to the Watergate scandal – the informant who passed information to investigator Bob Woodward used this pseudonym. Up until 2005 – it remained an enigma who was behind Deep Throat. In 2005, Vanity Fair revealed what many had long suspected – that William Mark Felt was Deep Throat.	Character pseudonym
Frank Jaeger	His last name ‘Jaeger’ is German for ‘hunter’.	Character
Gray Fox	Most likely a reference to Darwin’s Fox – which he (Charles Darwin) and others believed to be related to the South American Gray Fox.	Character name
Naomi Hunter	The last name adopted by Naomi (‘Hunter’) in a way is a dead giveaway that she is related to Frank Jaeger (see above etymological explanation).	Character
Richard Ames	Named after the ‘Ames’ strain – the bacterial strain used for the 2001 Anthrax attacks following 9/11 (the Ames strain is under near total control of the US biodefense program). It has been pretty much conclusively proven that the Anthrax attacks were an inside job – with Senator Patrick Leahy even suggesting ‘cover-up’ and a ‘criminal conspiracy’ inside the U.S. bioweapons industry.	Character name
Rivermore National Labs	Co-developers of Metal Gear REX in the game. Is this an innocuous mistranslation of ‘Livermore National Labs’ on the part of the English translators, or just precaution on Hideo Kojima’s part as to not implicate any real non-fictional organizations into the game’s fictional black-ops project? Livermore is home to some of the world’s top supercomputers.	Company
Selfish Gene Theory	A reference to Richard Dawkins’ 1976 book ‘The Selfish Gene’.	Concept

Sigint	DARPA chief Donald Anderson's nickname. According to the backstory, Donald Anderson was one of the co-developers of ARPANET – the predecessor of the Internet. Important to note in this context is that DARPA was originally known as ARPA – hence the name. SIGINT is military shorthand for 'signals intelligence'. In computer operating systems, SIGINT refers to a POSIX-compliant signal that a terminal sends to a process when a user wishes to "interrupt" that process.	Character nickname
'The Twin Snakes'	The subtitle of the 2004 GameCube remake. This seems to carry a double meaning – on a more superficial level it refers to Solid Snake and Liquid Snake. On a more esoteric level, it refers to the 'dual snake' imagery of the 'double helix'. The 'double helix' is the structure of DNA that is at the root of Solid and Liquid's creation – since they are both copies of Big Boss by way of DNA manipulation and somatic cell cloning.	Subtitle of Metal Gear Solid: The Twin Snakes

10 Footnotes

*. The gene-centered view on evolution has received a lot of criticism from evolutionary biologists and scientists alike. The most well-spoken of these is Richard C. Lewontin. As a geneticist himself, he has been a leading critic of scientific doctrine and ideology – in particular Neo-Darwinism. This interview conducted by the University of California comes as highly recommended[25, 26].

**. From an interview with Michel Ciment:

“Stanley Kubrick: Since I have always been interested in the topic, I think I was as well informed as I needed to be. I hope that ESP and related psychic phenomena will eventually find general scientific proof of their existence. There are certainly a fair number of scientists who are sufficiently impressed with the evidence to spend their time working in the field.”

Kubrick wasn't alone in this – he was most likely swayed by Arthur Koestler's 'The Roots Of Coincidence' – one of the first books published in the West that came out in defense of parapsychology and suggested a possible scientific basis for it by connecting the dots between concepts such as extra-sensory perception

and elements of quantum mechanics. In a letter Kubrick wrote in defense of *A Clockwork Orange*, he lashed out at someone who suggested a ‘fascist’ subtext to the film by challenging him whether or not he had read Arthur Koestler’s book *The Ghost In The Machine* – a book by an ‘anti-fascist’ which Kubrick felt perfectly represented some of his views and influences while making the film[27, 28, 29, 30].

***. Michael Crichton points out in this article that the number of deaths and injured by radiation due to the Chernobyl Disaster are massively exaggerated.

“The initial reports in 1986 claimed 2,000 dead, and an unknown number of future deaths and deformities occurring in a wide swath extending from Sweden to the Black Sea. As the years passed, the size of the disaster increased; by 2000, the BBC and New York Times estimated 15,000-30,000 dead, and so on...

Now, to report that 15,000-30,000 people have died, when the actual number is 56, represents a big error. Let’s try to get some idea of how big. Suppose we line up all the victims in a row. If 56 people are each represented by one foot of space, then 56 feet is roughly the distance from me to the fourth row of the auditorium. Fifteen thousand people is three miles away. It seems difficult to make a mistake of that scale.”[Michaelcrichton.com]

According to an United Nations report in 2005, the “largest public health problem created by the accident” was the “damaging psychological impact [due] to a lack of accurate information... [manifesting] as negative self-assessments of health, belief in a shortened life expectancy, lack of initiative, and dependency on assistance from the state.”

In other words, the mere information and massively overinflated impact it would have on life expectancy, miscarriages and genetic defects – the mere psychological shock factor led to a self-fulfilling prophecy. This, in itself, could be regarded as a psychological operation, or, more pertinently, a quasi-biofeedback loop (quasi in the sense that there’s no measuring of a person’s bodily functions involved, such as blood pressure, heart rate, skin temperature, muscle tension, and so on). The vast majority of people who experienced some type of defect from the Chernobyl disaster – it is stated here – rendered themselves sick on their own accord based on the information they were fed.

Contrast this to what Nastasha says during the game (keep in mind that the game was released in 1998 – and a subsequent remake in 2004 – so it’s highly likely Kojima based this on the commonly accepted data sources at the time)[31]:

“600,000-700,000 people were evacuated. Over 650,000 children suffered the effects of radiation poisoning. Between 1986 and 1993, 12,000 children died...” – **Nastasha Romanenko, Metal Gear Solid**

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